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LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY,

DELIVERED AT GUY'S HOSPITAL BY

DR. JAMES BLUNDELL.

Lecture XVI.

Management of the more copious Floodings.

Gentlemen,—It was observed to you in a former lecture, that we sometimes meet with cases of the earlier months, especially, in which the discharge from the womb is sparing; but in practice, we also meet with another variety of the disease, that, I mean, in which the discharge of blood is *more copious, more dangerous,* and *more pertinacious*—a sort of bleeding occurring occasionally in the earlier months, but still more frequent in the middle and later periods of pregnancy.

As in those cases where the discharge of blood from the uterus is sparing, it is always proper, when the discharge becomes copious, that the patient be placed in the recumbent posture, and that she be kept perfectly still; nor, if she lie in a very small room, or in a confined situation, provided the strength will allow, ought we to neglect her removal to a larger and more airy apartment, for the stimulus of heat has an obvious tendency to keep up the bleeding.

Again, in those cases where the discharge from the uterus has been copious, as in the more sparing discharges, you are not to neglect the administration of nourishment. Nourishment the patient can scarcely take with advantage, provided the large gushes of blood are still upon her; but it happens generally, in the cases under consideration, that after one or two large gushes, one, two, or more pints of blood escaping, the patient sinks into a state approaching deliquium, a small drain of blood alone remaining; and under these circumstances nourishment may be administered with a fair prospect of advantage. Often, it is true, the digestive powers are in great measure lost; but generally, I conceive, a part of the food is digested, and contributes more or less to the formation of chyle and blood, in quantities not to be despised when the patient is endangered by inanition.

In the earlier months of pregnancy, where the discharge of blood is small, the oil of turpentine is recommended, on authorities in matters of experience well deserving our deference. By Denman, and others, this same oil is recommended in the more obstinate cases of flooding, now under consideration; and although I have not myself tried the oil sufficiently often to enable me personally to vouch for its efficacy, yet on the whole, from the experiments which I have made with it, the impression left on my mind is favourable to its powers. I have told you already, that the quantity which different stomachs will bear is exceedingly diversified: from half an ounce to an ounce in the course of twenty-four hours may be considered as an average dose; sometimes you may exceed this, and sometimes even a smaller daily quantity will be rejected by the stomach. A drachm or two at once may be administered, floating on distilled water, a form less offensive than that of emulsion, sometimes recommended.

Further, when there are large discharges of blood from the uterus, the patient being prone to sink into a state of asphyxia, it may then, no doubt, become necessary to keep up the action of the heart by stimuli, (spirits more especially,) administered in a manner which I shall hereafter prescribe; but if, on the other hand, you are persuaded that the faintness is fugacious, beware of rousing the patient too hastily. Of the vascular action a certain degree of reduction is safe and to be wished for in these cases, because, under this faintness, the stream of blood loses its impetuosity, and the inherent disposition to concretion is augmented, the quantity of blood passing through the vessels in a given time, and consequently the quantity of blood in given time discharged from these vessels, when torn open, being smaller in consequence; and on all

these accounts, if the faintness be not very great, it is to be looked upon as a natural, and very powerful, and very desirable remedy, for staunching the discharge.

In flooding from the uterus, considerable advantage appears to be derived from the use of *lead* taken into the stomach, or administered by the rectum. To omit less weighty authorities, this remedy, Dr. Haighton used to mention with great commendation, conceiving that he had himself used it with decided advantage. If you make trial of the lead, it is in the larger doses you should employ it, the quantity being from four to six grains of the *super-acetate* in the course of 24 hours; six grains being a "large daily dose," and four grains in the 24 hours, a dose more moderate. With respect to the mode of administration, it may either be dissolved in distilled vinegar, with a proper mixture of distilled water, or it may be formed into pills. And as the lead sometimes offends the bowels, giving rise to very severe spasms there, endeavours may be made to correct this evil, by the conjunction of the lead with opium. To two grains of the super-acetate, add half a grain of opium, to be formed into pill, and this the patient may take two or three times a day; or again, to five grains of the super-acetate of lead, add 60 drops of the tincture of opium, three ounces of distilled vinegar, and the same quantity of distilled water, mixing and dissolving; the patient afterwards taking, four times a day, one quarter part for a dose. The lead, though reputed a powerful medicine, especially where there is a tendency to draining, is, it must be acknowleged, an unwieldy sort of remedy,—a kind of elephant in the battle. For this reason, the lead ought not to be used, unless the case seems peremptorily to require the more active treatment. It is not on every occasion that I would advise you to sit down, and, as a matter of course, to prescribe the super-acetate. If, however, you find the discharge copious and dangerous, and, above all, degenerating into obstinate drainings; if, to use a strong expression, death stare the patient in the face, under such circumstances, the active use of the lead might be recommended, and I think you would be fully justified in giving those large, and somewhat dangerous, daily doses, of which the measure was before given.

Under the action of lead, a paralytic affection, affecting the brachial muscles, is liable to be produced, occasioning a weakness of the wrist, denominated the *dangle*. In painters, and those whose occupations lead them to handle the more active forms of the lead, this obstinate paralysis is now and then produced. Whether the internal use of the lead have the same effect, I am not prepared to decide; but I never saw or heard of a single case of flooding or other bleeding, where, under the use of the super-acetate, this distressing disease has threatened the patient; and although I conceive that this fact ought to put you on your guard, there is no reason why you should be intimidated or deterred by it. Colica pictonum is certainly produced, sometimes by the lead in larger doses; a very severe pain extending itself along the bowels, as the lead makes its way through them, harassing the patient much, but lasting a few hours only. From 20 to 30 grains of the compound extract of colocynthis, with 2 or 3 or 4 grains of opium, is a useful remedy in these cases; or provided you deem the pain to be seated principally in the larger bowels, an ounce of the *oleum ricini*, and half a drachm, or a drachm by measure, of the tincture of opium, may be injected into the bowel with advantage.

Where the lead is given with due caution in the larger doses, it may be given in safety; but you may ask me, in what do these cautions consist? If you are administering the lead largely, you should observe the bleeding, and if you have effectually stopped it, let the lead be laid aside. Active and dangerous as the remedy is, a single dose more than seems to be justified by the urgency of the flooding, ought not to be administered. When the lead is administered, watch; if intestinal pains are not produced, it is well; while, on the other hand, if you find severe pains in the bowels, the remedy should be laid aside, for, under these circumstances, its continuance is not, perhaps, wholly unattended with danger. Again, in administering the lead, you ought to bear in mind, as you proceed, the aggregate quantity which may have been already given. Till, from your own experience, you find that more may be safely administered, do not rashly exceed the aggregate of 20 or 30, or, at most, 30 or 40 grains of the super-acetate, relinquishing the further use of the remedy if these quantities are inadequate to afford relief. So that by not exceeding a certain aggregate, which may be fixed by your own observations, by relinquishing the lead as soon as intestinal spasms become manifest, by refraining from the further use of the remedy, as soon as the bleeding is effectually checked, however small the quantity which may have been administered, you secure to yourselves, I think, the active use of the remedy without its danger.

When discharges of blood from the uterus are sparing, it is not my custom to apply *cold*, powerfully and extensively, to the lower parts of the abdomen—the back, thighs, buttocks, and so on; although, in conformity with popular feeling, I have recourse to vinegar and water, particularly if

the temperature of the patient be warm. But when the discharges of blood are more abundant, cold, a very powerful remedy, must be called to our aid, and ought to be effectually applied, though not without due caution. When a woman has lost so much blood, that she is, in every part of her body, cold already, which, in dangerous bleedings, is no uncommon occurrence; the application of cold, though, in conformity to popular prejudice, it may be recommended, is, I fear, of small advantage; but if you have a great deal of blood coming away, and if, with this, there is a certain warmth of the system, and a sort of febrile hurry of the circulation, in such cases cold may, perhaps, be administered with decisive advantage. Cold water is sometimes sprinkled over the body; cold water is occasionally injected into the rectum; and ice, naked or wrapped in linen, is occasionally pushed into the vagina, the remedy not being without its dangers, for if you *freeze* the vagina it dies. To omit these practices, however, there are, for ordinary purposes, two modes in which the cold may be administered; the one is by laying bare the abdominal surface, and dashing over it cold water from the cup, or by means of the hearth-brush dipped in a pailful of water, a rough, yet effective, practice; the other, a gentler method, conducted as follows:—

From the cistern, or the well, you procure a pailful of water, to which a pint or two of vinegar, recommended by popular opinion, may be added; then, taking some napkins, you effectually refrigerate them, by dipping into this cold mixture, or by thoroughly besprinkling their surface. This done, you apply them extensively to the central parts of the body, front and posteriorly, as soon as they become warm; it may be every two or three minutes, oftener or seldomer as the communication of warmth from the body of the patient may require. In some cases, the local application of cold seems really to be of considerable advantage; I have in my mind, at this moment, one case of draining, where other remedies had been tried with but little effect, and where the cold alone *appeared* to be efficacious in checking the discharge.

If the fœtus be come away, and if you have removed the placenta, in *general* practice it is unwise, where there are large discharges, to *plug* the vagina; for this, in many cases, might occasion an *internal* bleeding, the bleeding continuing, though the efflux is prevented, and the blood, of consequence, accumulating in the cavity of the uterus. Where, however, in the more copious floodings, the womb is not emptied, and the placenta is not yet away, the plugging of the vagina may be tried with considerable advantage. The purpose of plugging is, that of allowing the blood to accumulate in the vagina and the uterus, so as to form there clots, which may close up the mouths of the bleeding vessels. This object may be variously obtained: taking a napkin and folding, you may lay it upon the genital fissure, closing the orifice of the vagina without the introduction, or the irritation, of a plug. More conveniently, however, in many patients who are not irritable in these parts, you close the canal, by introducing a plug of tow, or sponge, or soft cloth. Cloth or sponge, is the plug which I am myself in the practice of introducing, more or less, according to the capacity of the cavity, recollecting that the smallest mass which will inhibit the discharge of blood from the vagina, is the best for the purpose. Of women, there are some in whom the vagina is so destitute of irritability, that introduce what you will there, the organ bears it without reaction; of others on the contrary, and more especially of young females, the vagina is sometimes so exceedingly susceptible, that the plug cannot be borne, unless, perhaps, for a few hours; and, in these cases, the application of a napkin to the genitals externally, may be substituted. When the plug can be borne for a few hours only, apply it nocturnally; this may prevent your being called up in the middle of a cold December night. When the plug remains quiet, don't be in too much haste to remove it; recollect, that the longer it is left there, the more completely will the vessels become contracted and closed up.

In the earlier and middle months of pregnancy, as in the end of gestation, you will find, as I explained to you in a preceding lecture, that to empty the uterus is a most effectual mode of stopping the blood, and hence the use of *deobstruents*: for it generally happens, when floodings have occurred previously to the birth of the ovum, that on the abstraction of the ovum and the complete evacuation of the uterus, the discharge wholly, or in great measure, ceases. Where a patient is labouring under floodings in the earlier or middle months, and more especially under obstinate floodings, recurrent again and again; the emergency justifies us in having recourse to this remedy, unjustifiable perhaps in cases less pressing. In such cases, the thorough evacuation of the uterus is the only remedy on which we can certainly rely. The uterus, however, it is not in our power to empty with the same facility and certainty as the intestines or the stomach; but there are three remedies of the deobstruent class deserving a trial in these cases, and these three deobstruents are—succussion, injection, and the secale cornutum. A jolting ride on a rough road, in an uneasy carriage, where the propensity to miscarriage is strong, may

occasion the expulsion of the ovum. The remedy is rude—scarcely to be recommended—fitted to a few cases only—where strength remains—and the pregnancy is of the earlier months—say the first two or three; in latter gestation it would be dangerous.—A medical attendant should be in the carriage,—the house of the patient should always be at hand. Saline clysters will do little, if the womb is indisposed to contract; but if the fibres are in action, an ounce of salts and six of the infusion of senna, or other more powerful stimuli of the rectum, may be tried with advantage. But of all the stimuli exciting uterine contraction, that, which, failing flatly in some cases, in others, however, seems to operate in the most decisive manner, is the secale cornutum, or ergot. In powder, in infusion, in decoction, it may be given; and suspecting from some experiments made, in conjunction with Mr. William South, that its virtues reside in a vegetable alkaloid, I presume it may hereafter be administered in the form of pill, like the quinine, when probably it may be found less offensive to the stomach:—I would invite the chemists to the investigation of this point. In general, my formula has been, of ergot ʒj. in coarse powder, of boiling water three ounces, to be decocted rapidly to one half, the patient taking of the decoction poured off, one-third every twenty minutes, unless some obvious effect were previously produced. In one miscarriage of the third month, to omit others, after the administration of the ergot, I remember the pains became almost incessant till the ovum was expelled. The ergot will not, I think, act unless the uterus be irritable and disposed to the pains. At Butler's, in Covent Garden, you may get supplies of the secale cornutum; I now show you specimens of it. It is principally produced in America, and perhaps I may add the South of France.

In as many as thirty cases where floodings occurred in the end of gestation, and where the placenta was not lying over the os uteri, Merriman found that the discharge of the liquor amnii either stopped the floodings, or reduced so greatly the quantity of the bleeding, that it became no longer dangerous. By Rigby, under similar circumstances, the same remedy was tried, and in fifty or sixty cases with the best success. Set down, therefore, the discharge of the liquor amnii among the remedies for suppressing the floodings of the latter months. Nor is it difficult to accomplish this; carrying one or two fingers of the left hand through the os uteri up to the membranes usually felt with facility, take a bluntly-pointed instrument, say a female sound, for example, sharpened for the purpose, and with this instrument puncture the membranes and discharge the liquor. Under this operation the hæmorrhage becomes diminished, perhaps immediately; and although the ovum may now and then, perhaps, be retained till the end of the nine months, especially if opium have been given, yet more generally in two or three days afterwards, the whole is expelled, and the womb emptying itself, contracts thoroughly, so that the flooding becomes entirely suppressed. In all cases, in the middle or later months, where there is an obstinate efflux of blood from the uterus, remember that you have in the discharge of the liquor amnii a most powerful remedy; in some of the worst floodings, where other remedies are failing, you lacerate the membrane, and the hæmorrhage ceases.

By manually emptying the uterus, so as to allow of a thorough contraction of its cavity and constriction of its fibre, the bleedings may be suppressed, though not in all cases, in many. And there are different modes in which this evacuation may be accomplished; sometimes in floodings, we find the child's head has been pushed down into the vagina, where we may apply a pair of forceps upon it, and draw it forth. In other cases, and these are far more frequent, the child is lying entirely above the brim of the pelvis in the cavity of the uterus, so that no parts of it, except the presentation, can be felt. Now in cases like these, the hand may be introduced into the cavity of the uterus, and by that operation of turning already explained to you, the fœtus may be brought away. Even in the earlier months, although the manual evacuation of the womb is undesirable, the parts being thin and lacerable, should the removal of the ovum be deemed necessary, it may sometimes be accomplished. With the utmost gentleness lay the left hand in the cavity of the vagina, passing the genital fissure for this purpose. Then the bulk of the hand remaining in the vagina, let the first and second finger be passed up into the cavity of the uterus, so as to reach from mouth to fundus, while the womb, felt above the symphysis pubis, is by the action of the right hand pressed down upon the fingers of the left. By this manœuvre, the contents of the uterus may be brought within reach and control, and, by a small action of the fingers, may be easily got away. Though practicable, this operation is of dubious use: if unskilfully or unwisely performed, it is surrounded by the risks of laceration. Thus sometimes by the insertion of the fingers, sometimes by the operation of turning, and sometimes when the head of the child is lying in the vagina, by the judicious application of the forceps, the fœtus and placenta may be abstracted; when, as before, the womb contracting, and the muscular

fibres becoming constricted, little further discharge of blood need in most cases be apprehended. And thus much, then, respecting the principal remedies to which you are to look, when you have the more obstinate and dangerous discharges of blood from the womb.

We now, Gentlemen, pass to the consideration of the third sort of cases, frequent in consultation practice, and of the utmost importance—I mean those cases in which large quantities of blood are come away from the uterus, in the latter months more especially, and where you find, on entering the apartment, that the woman is already dead; or, as more frequently happens, that she is lying in a state merely approaching to asphyxia. To two dead females I have been called in the course of one night, both destroyed before my arrival by large eruptions of blood from the womb. And should you meet with cases of this kind, as they must occasionally fall within the circle of a comprehensive practice, your first consideration relates to the removal of the child.

In some instances, the fœtus, low down in the pelvis, or lodging in a dilated os uteri, might be abstracted with little disturbance by turning, or the forceps; in others, the os uteri being shut more or less completely, the fœtus could not be extracted without violence, by the natural passages, and the razor, and the Cæsarian incisions, would, in a scientific view, be a preferable method of delivery. In deaths from flooding, however, the fœtus will rarely be found alive. The interrupted placento-pulmonary function frequently destroys it even within the uterus, perhaps while the mother still survives. Considering, as I do, that the fœtus ought certainly to be saved from drowning; if practicable, I should in my own family, wish the child to be withdrawn, if this could be accomplished without violence; but should delivery be impracticable, without laceration of the uterus, or the Cæsarian incisions, I should forbid it. Before the patient is utterly dead, and past all feeling, to remove the fœtus by *violence is a horrid cruelty*, which we must, I am sure, all of us, with one voice, condemn; and considering how possible it is, that some sensibility may still inhere, even when an ordinary practitioner little suspects it, as the security of the mother is always paramount in British midwifery, in conformity with this principle, I think that severer measures ought to be forbidden altogether, interdicted even in those cases where the woman appears to be dead. Generally, however, under these large discharges of blood, on arriving, you find your patient still living, but in a state approaching to asphyxia: she is pale and ghastly, and cold and gasping, and, in great measure, insensible; her heart flutters, there is little or no pulse in the wrist; she lives still, but the grave yawns under her, eager for its prey; move her from one side of the bed to the other, she dies; disturb the clots by passing the fingers into the vagina, she dies. It is clear that when patients are in this condition, trembling upon the very brink of destruction, there is but little time for you to think what ought to done; these are moments in which it becomes your duty not to reflect, but to act. Think now, therefore, before the moment of difficulty arrives. Be ready with all the rules of practice, which those very dangerous cases require.

Called to a case of this kind myself, the first thing I do, is to direct my attention to the circumstances under which these bleedings occur; for these floodings may occur in the pregnant, or the unimpregnated,—in the earlier, or in the latter months, without the placenta over the os uteri, or with a placenta partially, or altogether covering this part—before the birth of the *fœtus*, or afterwards—before the birth of the placenta, or afterwards—or, in twin cases, one child being born, the other may remain in the uterus—or, when the secundines have to appearance been removed, a large piece may still remain in the uterus, the accoucheur not suspecting in the latter, still more frequently in the earlier months. These points are of no small importance. On reaching, therefore, the apartment of your patient, the attention should be directed immediately to all of them; this is easily done, if you have them on your mind, and should certainly by no means be neglected.—What are the circumstances under which the floodings occur.

Again, if I am called to one of those cases in which the patient approaches to asyphyxia, I am anxious to know whether the bleeding has been arrested; sometimes it is going on, more frequently it has been arrested, or the discharge which continues is a mere show. To determine a point so important, I would recommend you, with as little disturbance as may be, to clear the blood from the genitals; and then, again, with as little disturbance as may be, to spread cautiously a napkin between the hips and the bed; this done, another clean napkin, interposed between the thighs, may be applied against the orifice of the vagina, and if there is no further discharge the napkin will retain its whiteness, but if the bleeding continue, blood will make its appearance on the napkin in the form of concretions and a red patch, broader or more circumscribed, according to the quantity of the discharge. Of the abundance of the bleeding you may judge from the colour; if redder, then larger orifices are open—if paler, then smaller; or, at all events, in the latter case the dis-

charge is smaller, and of course less likely to be productive of danger.

In cases of this kind also, where the patient is approaching to asphyxia, I am very anxious to know whether the system be on the rally or the decline—a most important inquiry. Now, sometimes, you find the patient is evidently improving from half hour to half hour; her hands and feet are warmer—her pulse is stronger—her countenance is brighter—her mind is livelier—in a word, there are all those appearances of amendment which, after you have been in practice a little, you expect to meet with when the strength is rising. On the other hand, however, you are sometimes meeting with different cases, in which, although the hæmorrhage is stopped, the patient is evidently on the decline. After floodings immediately, women sometimes die in a moment, but more frequently in a gradual manner; and over the victim death shakes his dart, and to you she stretches out her helpless hands for that assistance, which you cannot give, *unless by transfusion*. I have seen a woman dying for two or three hours together, convinced in my own mind that no known remedy could save her; the sight of these moving cases first led me to transfusion. Experience is the only mean of acquiring the knowledge of these mortal symptoms. To seize the tact which will enable you to determine with promptitude and certainty whether death must ensue or not, the cases must be seen. For a full enumeration of the symptoms which indicate the death arising from inanition, I must refer you to the history of them already given; it may not, however, be amiss in the way of repetition, to remark here, that to myself the fatal termination is principally foreshown by a certain ghastliness of the countenance—by a restless disposition to change posture—by a long-continued cessation of the pulse in the wrist—by a gasping respiration, like that produced by running—and by a jactitation of the arms and legs, joined with a feeling of most oppressive anguish. From these symptoms, associated with the ordinary signs of inanition, women seldom escape; nor must it be forgotten, that they sometimes, in a fainting fit, die suddenly, or more slowly, without the harbingers of dissolution to foreshow the event.

One more remark, and I conclude. If you are called to cases in which there has been a good deal of discharge from the uterus, the patient lying in a state approaching to asphyxia, you will sometimes find her, as you enter the room, supplicating that her posture may be changed, and this more especially, if under the flooding restlessness have supervened. Now I wish you to understand, most distinctly, that the change of posture is very drangerous, and that frequently, when it is allowed, it does not afford the expected relief. When a great deal of blood is come away from the uterus, even where the patient is rallying and likely to do well, and where, perhaps, for two or three hours together, but little discharge has occurred, were you to direct the patient to be lifted from one side of the bed to the other, you might cause a terrific disturbance of the circulation, or a renewal of the discharge destructive to life. One woman, in whom a large bleeding had been suppressed, perished, in this manner, under my own observation; to appearance all danger was over—like a thunder-cloud it was passed away—when, unhappily, she rose to the erect posture; the flooding was renewed, and she sank. Many years ago this case occurred to me, and made a strong impression on my mind. A patient, on whom I performed the operation of transfusion, and who was very effectually relieved by it (ultimately recovering) two or three hours afterwards, was so urgent with me to allow a change of position, that my feelings subduing my judgment, I assented. From this disturbance of the body, however, such perturbation of the heart ensued, that for three or four minutes together, I thought the patient would have sunk; and, really, the recovery might more properly be ascribed to our good fortune, than our good practice. Only the other night I was called to a patient, in whom there was a large discharge of blood from the uterus, and where the woman was reduced to a state approaching to asphyxia, though likely to do well; this woman, contrary to my wishes, was moved, and for a few minutes her life seemed, of consequence, to be in danger the most imminent. So that to revert to the rule with which I set out, and which these facts illustrate, remember, that if you are called to cases in which the women are lying in a condition approaching to asphyxia, you ought never without need to move them at all—and, above all, you ought not to move them into the erect posture. One change you may, *perhaps*, sometimes make with advantage, gently and cautiously raising the legs, so as to bring the blood upon the heart and central parts of the body, you may with equal caution and gentleness withdraw the pillows, and suffer the head to sink below the shoulders; the head, if the woman chance to be already lying close upon the edge of the bedstead, being allowed to hang down over it a little way, so as to facilitate the access of the blood to the brain. All this, I say, you may perhaps do, in these cases, with gentleness, with caution—shall I add, with fear and trembling; but, after all, I am not altogether convinced of the excellence of the practice, nor dare I dogmatically pronounce, that it is either very useful or very safe.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XXIV.

On Carbonic Acid, Carbonate of Ammonia, and the Combinations of Carbon with Chlorine and Hydrogen.

The principal fact which I endeavoured to point out at the end of the last lecture was, that carbonic acid consists of carbon and oxygen in combination, but that the oxygen undergoes no change of volume in being converted into carbonic acid; so that if you convert 100 cubic inches of oxygen into carbonic acid, you have always the same volume of carbonic acid gas. We stated, that 16 parts by weight of oxygen took up six parts of carbon to produce carbonic acid; if, therefore, we represent carbon as six, we say, it takes two proportionals of oxygen, 16, to form 22 of acid. Its specific gravity is 46.6; in comparison with air it is as 1.544 to 1.000; and to hydrogen, as 22 to 1. There is a property which carbonic acid possesses, namely, to render lime water turbid, and this is therefore used as a test of the carbonic acid, and a very good test it is, with certain precautions, which will be afterwards pointed out.

Now, if the diamond and carbon be the same, as we have represented, it follows, that if we burn the diamond in oxygen we shall obtain the same result as if we burnt carbon in oxygen, and this was proved to be the case by Lavoisier in 1772. He burnt five grains of diamond in a given weight of oxygen, and he found that he obtained the same result as when he burnt five grains of pure carbon in oxygen, and he was therefore led to conclude, that the diamond was pure carbon; and, although this experiment has been many times repeated the result has always been the same; the inference is, therefore, irresistible, that charcoal and the diamond, although differing in mechanical texture, are similar substances in their chemical nature. Mr. Faraday informs me, that the diamond may be easily burnt by directing a stream of oxygen upon it through the flame of a spirit lamp, and if it be then immersed in a jar of oxygen on a platinum dish, which has some lime water at the bottom of it, you will find that combustion will go on, and that sufficient carbonic acid gas will be formed to render the lime water turbid.

Carbonic acid is generally procured by other processes for the purposes of experiment; it may be obtained by decomposing any of the carbonates, but the one generally selected is the carbonate of lime or marble. You introduce some small fragments of the carbonate into a flask of this kind, and pour upon it some diluted muriatic, or sulphuric acids; the result is an abundant extrication of carbonic acid gas, which is one of the ingredients of the marble. The gas, as you see, may be collected over water, but it must be preserved in vessels with glass stoppers, since, if you leave it standing over water it becomes absorbed. At the common pressure of the atmosphere, water takes up its own volume of gas; at a pressure of two atmospheres it takes up double the quantity, and so on; and therefore we find that by passing carbonic acid gas into very strong vessels containing water, we may make it take up very considerable quantities of the gas. Water thus impregnated is generally sold under the name of soda water. Dr Nooth invented an apparatus for impregnating water with a large quantity of carbonic acid gas, which is generally known as Nooth's apparatus: it consists of three vessels made of glass, the lowest of which is flat and broad, so as safely to support the others, and to contain the materials for evolving the gas before mentioned; the gas passes through a tube coming from the second vessel, in which there is a glass valve opening only upwards, and this vessel contains the water intended to be impregnated with the gas, which may be drawn off by a glass stop cock in the side of the vessel. Into this, the tube of the third and uppermost vessel dips, from which the supply o water is derived as it is drawn out of the second; and at the top of it is a heavy conical stopper, which should not be screwed very tight, as it acts as a safety valve and keeps up a degree of pressure on the vessels. The acid collected in this manner renders lime water turbid, and reddens delicate vegetable blues; but this reddening is not permanent, as, when the paper dries the acid flies off, and the paper again becomes blue; and this enables us to distinguish between the volatile and fixed acids. Now I know if I add excess of carbonic acid to a fluid containing carbonate of lime, that the carbonate will be held in solution, and hence we have many springs containing large quantities of carbonate of lime, the water of which, when exposed to the air, gives off its carbonic acid and deposits the lime, and these are called petrifying springs. The water of Tunbridge Wells, and some of the waters of Cheltenham, contain large quantities of

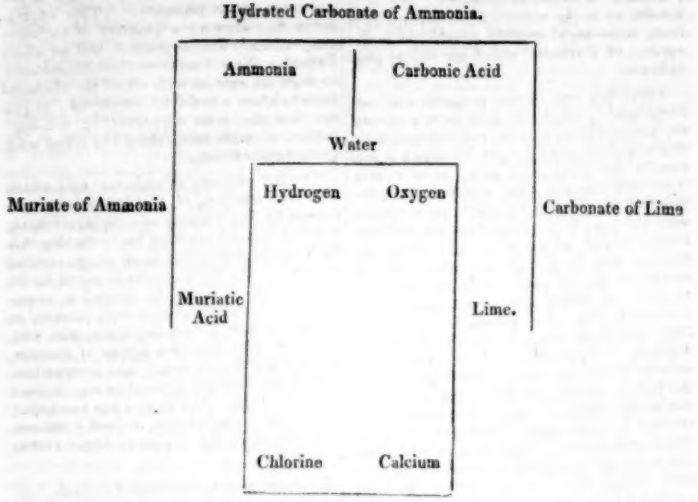
carbonic acid. In some water this acid is contained in immense quantities, and it is thrown up in the water of the springs as if from some inexhaustible source, as in the springs of Pyrmont; which are chiefly chalybeate.

There are one or two properties of carbonic acid to which we shall briefly advert, as, for instance, its power of extinguishing flame, and its great weight, by which it will remain for some time in an open vessel. You will observe that a taper is extinguished the instant it comes into contact with the gas; but, after a time the acid becomes mixed with the air, and then combustion will be feebly supported. By its weight, it may be poured from one vessel to another; to prove this, if we put a taper into the bottom of a vessel, and pour carbonic acid from another into it, it will be instantly extinguished. It is known to miners under the name of *choak damp*; and the fact is, that the epiglottis becomes spasmodically affected, when we attempt to breathe, it closes upon the larynx, and produces suffocation. Now miners and well-diggers ought to try the state of the air of a place before they venture into it, by first putting a lamp into it; but they are such hardened and thoughtless persons, that we continually hear of fatal accidents happening from the breathing of carbonic acid gas in pits, and in the lower parts of mines, where it will be sure to descend on account of its great weight. Carbonic acid is produced in great abundance by the respiration of animals, and, in a future part of the course, we shall have to tell you the quantity of it respired in a certain time, and the effect of it upon the blood. The fact is, that all animals, when breathing, are continually taking a quantity of oxygen into the lungs, and throwing off carbonic acid, and the same thing is accomplished by the respiration of plants. In all cases of combustion, carbonic acid is a great product, and therefore a large quantity of it is always being thrown out into our atmosphere. It has but a feeble attraction for bases, and is, therefore, easily expelled by heat, as in the manufacture of lime; the limestone is a carbonate of lime, and the carbonic acid is readily driven off at a red heat. It is also readily driven off from its combinations by the stronger acids, when its presence is indicated by an effervescence.

Now, although carbonic acid extinguishes the flame of the taper, of sulphur, of phosphorus, and other burning bodies, it will support the combustion of the metal potassium, and an alkali will be formed, namely, an oxide of potassium, by the metal abstracting the oxygen of the acid. It requires to be put into the gas in a state of good ignition, when it will be seen to burn in the gas with great intensity. (This experiment was shown; a quantity of carbonaceous matter was deposited, and an alkali formed.) Now I mention this circumstance to show the caution with which the chemical nomenclature should be employed; as you see that the term supporter, or non-supporter, of combustion, should be taken with great modifications.

The last property of carbonic acid which I have to mention, is, that it has been condensed by Mr. Faraday into the liquid state, and Mr. Brunel has been led to employ this fluid as a motive power in an engine instead of steam. As the pressure required for its liquefaction is equal to forty-five atmospheres; the application of such pressure as a motive power, is very ingenious, and will, no doubt, have a certain degree of success, but that it will ever come into competition with steam, I do not pretend to say; at least not in our time. Mr. Brunel has succeeded in obtaining some ounces, indeed I believe I may say more than a pint of liquid carbonic acid.

We come now to *carbonate of ammonia*, and have to consider the action of carbonic acid upon ammonia. If you introduce a little *liquor ammoniæ* into a jar of carbonic acid gas, the gas is rapidly absorbed; but you will find that there are, in point of fact, many combinations of ammonia with carbonic acid, and that their history is rather a more complicated matter than has generally been suspected. Now here is ammoniacal gas, and here carbonic acid gas, and these will entirely condense each other in such proportions, as to form a true carbonate of ammonia, consisting of one volume of carbonic acid gas 17, and two volumes of ammoniacal gas 22, the resulting compound being represented by the number 39. If water be present in the vessel in which we combine these gases, the ammonia will take up another volume of carbonic acid, and then we have a *bicarbonate of ammonia* produced, or rather a hydrated bicarbonate of ammonia. It is composed of two volumes of carbonic acid 44, one of ammonia 17, and two volumes of water 18, and therefore its equivalent is 79. In general you find carbonate of ammonia in large masses in the shops, in the state in which it is broken out of the subliming vessels in which it has been procured, from a mixture of carbonate of lime and muriate of ammonia; the result of which decomposition is in addition to the hydrated carbonate of ammonia and chloride of calcium, the water being always found in combination with the carbonate; and you may readily understand the nature of the decomposition from the following scheme:—



Now, supposing the materials perfectly dry, the water is formed by the union of the hydrogen of the muriatic acid, with the oxygen of the lime; the ammonia of the muriate of ammonia unites with the carbonic acid of the carbonate of lime, to form with the water the hydrated carbonate of ammonia, whilst the chlorine of the muriatic acid, uniting with the calcium of the lime, forms a chloride of calcium as you have set down. There is another proper and true carbonate of ammonia formed in the following proportions, namely, of three proportions of carbonic acid, 66, two of ammonia, 34, and two of water, 18, so that its equivalent number is 118; this is the composition of the carbonate of ammonia, of the common *ammoniæ subcarbonas* of the Pharmacopœia, as was shown by Mr. Richard Phillips. A pint of water at 60°, dissolves rather less than four ounces of it, and this solution is the *liquor ammoniæ subcarbonatis* of the Pharmacopœia. It has a highly pungent and urinous smell; it acts upon vegetable blues in the manner of an alkali, turning them green, and reddens turmeric paper.

Carbon and *chlorine* were first found in union by Mr. Faraday, who mixed some carburetted hydrogen with an excess of chlorine, and exposed it to light. A white crystalline substance was formed, which, when purified by washing, was found to be a binary compound of carbon and chlorine, in the proportion of three parts of chlorine, 108, and two of carbon, 12, giving as its equivalent the number, 120. This *perchloride of carbon* is insoluble in acids and alkalies and ether, but it is soluble in spirits of wine, and has a sort of aromatic odour, although it is nearly tasteless. It acquires the state of vapour at 135°, and what is curious, since the discovery of this first, a second and a third compound of the same elements have been found, so that we now have three compounds of chlorine and carbon.

Having now described the combinations of carbon with chlorine, iodine and oxygen, we come next to show you its combinations with *hydrogen*, which form a very interesting class of bodies.

The union of *carbon* and *hydrogen* has been called *carburetted hydrogen*, or *olefiant gas*, which may be readily obtained by the decomposition of alcohol by sulphuric acid. Mix together four parts of sulphuric acid, and one part of spirits of wine, and this will produce, when heated, a plentiful supply of carburetted hydrogen. Why it has been called olefiant gas, you will presently see by the action of chlorine upon it. A hundred cubic inches of this gas weigh 29.7 grains, so that it is a little lighter than air, to which it stands in the relation of 98 to 100, and to hydrogen as 14 to 1. If regarded as to its composition, it is found to be composed of one part of carbon 6, one of hydrogen 1, making its representative number 7; but,

by its union with the hydrogen, it loses half its bulk, which is necessary to be borne in mind, in order to account for the specific gravity, two volumes of hydrogen being condensed into one of the gas. You will find, in the first place, that unless it be kept for a long time over water, it has an ethereal smell; it is very fatal to animals, it supports combustion, and burns itself in contact with air, with a vivid flame, and the result of the combustion is water. Now, if you mix oxygen with this gas, you will find that, for its perfect combustion, one volume of the gas must have three volumes of oxygen, and this is the result of the combustion; namely, one proportional of carbonic acid, and one of water, which also serves to show its composition. When *chlorine* is mixed with this gas, it forms a substance which has been improperly called *oil*; this happens when the gases are mixed together, in the proportion of one volume of the carburetted hydrogen with two of chlorine, and when they are allowed slowly to combine over water; but if, instead of doing this, you burn them, you will then find that the carbon will be precipitated, and that muriatic acid gas will be produced. This was shown to be the case by experiment. You see, said Mr. Brande, from the dense cloud of carbon thrown down, what an immense quantity of it was suspended in this before transparent gas, but, unfortunately, it never falls down in the shape of diamonds. This carbon it is which makes the gas so useful for the purpose of illumination, the carbon giving an intensity to the flame. That muriatic acid gas is formed, you may easily satisfy yourselves, by uniting the fluid in the jar with any vegetable blue colour.

Some of the other compounds of carbon and hydrogen which have been more recently discovered, and the mode of producing the common coal gas for illumination, we shall take up in the next lecture.

ROYAL INFIRMARY, EDINBURGH.

"*Ligature applied to the external Iliac Artery, by Dr. Ballingall.*"

The subject of this operation, J. Thompson, a man of middle age, has been in the Hospital for more than three months. He was admitted for a tumour in the groin, by some considered a carcinomatous gland, by others fungus hæmatodes. Its removal was followed by a tedious and extensive process of sloughing and suppuration, having a large ulcer which occupied the greater part of the hollow of the groin. In the centre of this ulcer, there remained a deep excavated pit of about the circumference of a shilling, immediately below the centre of the crural arch, which was generally covered at the bottom with a whitish tenacious matter, the surrounding sore having, in some time, assumed rather a healthy granulating surface. In this state the patient continued confined to his bed, with but little variation in the appearance of the ulcer, from October to the 13th of December, when our attention was called more particularly to the case, in consequence of the occurrence of hæmorrhage for a few days previously. On examining the ulcer at this date, it was covered towards its centre with an ash-coloured slough, the granulations having been absorbed; the glands in its vicinity were partially enlarged, and painful; the limb on the affected side was slightly œdematous; and he complained of a gnawing, lancinating pain shooting through the parts. The pulse was 107; the tongue furred; and bowels requiring to be kept open by castor oil. In this condition he remained with little alteration of the local and constitutional symptoms described to the 18th, when the bleeding again returned to the amount of a few ounces, but soon ceased. In the evening of the same day, at about half past one and three o'clock, the hæmorrhage recurred; and in consequence of its decidedly arterial nature, a consultation was held at half past seven, and an operation determined on, which Dr. Ballingall performed, by making an incision three inches in length in a straight line, and extending from near the abdominal ring to the anterior superior spinous process of the ilium. Having cut through some thickened cellular substance, the tendon of the external oblique muscle was exposed and divided, along with the internal oblique and transversalis. The artery, which was covered by several enlarged lymphatic glands, was now felt pulsating in the bottom of the wound; in removing these glands from the trunk of the artery, a vessel of considerable magnitude was divided, which, bleeding very freely, Dr. Ballingall immediately seized the external iliac in the fingers of his left hand, and with the other, passed a ligature round the artery; tied it firmly; cut off one of its ends close to the knot; dressed the wound with adhesive plaster, and ordered an opiate to be immediately given to the patient.

The deviation from the usual semi-lunar incision, to a straight one, was rendered necessary in consequence of the extension of the ulcer over the lower margin of the external oblique muscle.

On visiting him on the 19th, we found him threatened with peritonitis; he had little rest; was troubled by eructations during the night; abdomen disturbed, and

painful on pressure; pulse 116, small, and hard; bowels constipated; skin hot; tongue furred, and complained of much thirst. No pulsation perceptible in the limb, which, for fourteen hours after the operation, became cold and numb, but then regained nearly the natural temperature. Ammonia was immediately given, and sixteen leeches applied to the abdomen. On the 20th, the symptoms described had considerably abated; the pain of the abdomen on pressure was much less; he slept for some hours from another opiate; the tongue still furred, but moist; pulse 118, softer and fuller; and bowels relieved once by the enema. Another opiate was administered on the night of the 21st, which procured him some rest; and on visiting him on the morning of that date, we found him free from pain of the abdomen, except on severe pressure being made on the part; the distention almost entirely subsided, but more troubled by eructations; pulse 96, improved in strength; tongue cleaner, and bowels opened by castor oil. The wound, on being opened, was found to have united superficially to about two-thirds of its length, a cavity being left underneath, from which a quantity of sanious matter was discharged. From this date to the 29th, his health gradually but slowly improved, having had some rigors and perspirations at night; his pulse alternating between 96 and 108; his bowels kept open by castor oil and enemata, and sleep promoted by opiates. The wound, after an unhealthy suppuration, assumed a granulating aspect, and the ligature came away at the latter date. No pulsation can be distinguished in the limb, which continues still numb and powerless to a certain extent. At the date at which we are writing, the original sore remains nearly in the state already described; and the wound made in the performance of the operation, is united all but about half an inch.

SCOTUS.

Edinburgh, Jan. 19, 1827.

ST. BARTHOLOMEW'S HOSPITAL.

STRANGULATED FEMORAL ENTEROCELE, WITH ULCERATION OF THE STRICTURED BOWEL ON ITS MUCOUS SURFACE, BY THE PRESSURE OF GIMBERNAT'S LIGAMENT.

ELIZABETH TOMLINE, aged 43, was admitted into Queen's Ward, Dec. 3, 1827, under the care of Mr. Lawrence. She stated that she had been subject for some years to a swelling in the right groin, which had always been easily reducible, and had occasioned no inconvenience, so that she had never worn a truss.

On Wednesday, Nov. 28, whilst standing at the washing tub, she felt a sudden increase of the tumour, accompanied with pain; she immediately went to bed, but was unable to return it. In the evening the pain increased, and vomiting came on; she took some aperient medicines, which produced no effect. The vomiting and constipation have continued to the present time, but she states that the pain and tenderness in the tumour and abdomen were more severe two days since than at present.

On her admission into the hospital, there was a tumour, about the size of a large walnut, in the right groin. It was rather tense and elastic, but not very painful. The abdomen was generally swelled, nearly free from tension, and but slightly painful on pressure. She vomited occasionally a dark fluid. Pulse frequent, but not full nor hard. She was immediately put into a warm bath, and attempts made (by Mr. Weekes, the house-surgeon) to reduce the tumour, but without effect. Aperient medicines were given, and an enema administered; the medicine was rejected, and the clyster returned without fæcal matter. Mr. Lawrence, who saw the patient soon after her admission, considering that it was the fifth day of strangulation, determined on operating immediately, which he did at eleven o'clock, P.M. On laying open the hernial sac, a small quantity of light-coloured serum escaped, and a portion of small intestine was exposed, of the deepest brown colour, nearly approaching to black. This was so closely strictured, that it was impossible to introduce even the end of a small probe on the anterior or upper side of the bowel. The director was therefore, with some difficulty, passed on the outer side, and the stricture enlarged by carrying the curved knife obliquely upwards and inwards, when the bowel was easily replaced. The integuments were brought together and united by three sutures, and adhesive straps. Two hours after the operation, three tablespoonfuls of the following mixture were given, with directions that it should be repeated every hour until the bowels were opened.

Magnes. Sulphat. ℥i;
Mist. Salin. ℥viii. *M.*

4. Two o'clock, A.M. Her bowels had been moved two or three times, the pulse had become quick and sharp, and she complained of pain in the abdomen. Venesection to fourteen ounces. About an hour after this, considerable hæmorrhage took place from the wound, so that it was necessary to take away the sutures, and secure two or three vessels.

Eleven o'clock. Has slept at intervals during the night and this morning; the bowels have been evacuated several times with much relief; complains of great pain in the vicinity of the wound and abdomen, which is swollen, and very tender on pressure; pulse hard and sharp; no bleeding from the wound; blood taken this morning not inflamed. (Venesection to twelve ounces. Fifty leeches to the abdomen, warm fomentations, and a bread poultice. Continue the mixture every four hours.) In the afternoon she became sick, and vomited; the pain, swelling, and tenderness of the abdomen, were not relieved, but, on the contrary, increased; her countenance had undergone a marked change; pulse quick and feeble. Haust. effeves. c. mag. sulph. ʒi, every two hours; the bowels, which had not been opened since the morning, were evacuated by a clyster. She continued to get worse; pulse more feeble, and body covered with cold perspiration; she suffered extreme pain, became delirious, and died at eleven o'clock, P. M.

Examination fourteen hours after Death.

The abdomen was nearly filled with numerous convolutions of distended small intestine, streaked with red at the points of contact, and slightly agglutinated to each other, and to the parietes. This was the portion of the canal above the protrusion, the seat of which was in the ilium, about four inches from the cæcum. The protruded bowel was about two inches in length, and agglutinated to the abdominal parietes and the surrounding convolutions, the inflammation being most considerable at this point, and extending thence over the cavity. It exhibited the same discoloration as when it was exposed in the operation, but had not lost its vitality. The discoloured portion was bounded by a circular indentation, as if it had been tightly embraced by a cord, and this contraction was not affected by powerful inflation. The indentation was deepest where the bowel had lain under Gimbernat's ligament, the sharp edge of which had left a crescent-shaped white mark on the peritoneal surface. The mucous membrane was ulcerated in a narrow line corresponding to this mark. The intestine for some inches above the protruded part was highly inflamed.

Remarks.—This case strikingly illustrates both the local and more general effects which the stricture is capable of producing in cases of strangulated rupture. The bowel had suffered serious mechanical injury at the strictured part; and the coats of the protruded portion had undergone so considerable a change in consequence of this pressure, that they were incapable of recovery. Until the time of the operation, the symptoms were merely those of mechanical obstruction; that is, constipation, general enlargement of the abdomen, without tension or pain, and disturbance of the stomach. Soon after the operation, symptoms of peritoneal inflammation appeared, namely, severe pain and tension, constant sickness, disturbed circulation: there can be no doubt that this inflammation was excited and maintained by the presence in the abdomen of the altered portion of bowel. The symptoms were, indeed, mitigated by the occurrence of stools, and by the loss of blood; but they returned very quickly in each instance, and soon destroyed the patient.

It is worthy of remark, that, although the intestine had suffered so much from the stricture, the general character of the case, both in the degree of the symptoms and the rate of their progress, was decidedly chronic. This should teach us, that the apparent mildness of the symptoms is no reason for deferring the operation, whenever we are satisfied that strangulation exists.

Some months ago, Mr. Lawrence operated in a case of strangulated femoral enterocele, exactly like the present. The sac contained a small portion of gut, nearly black; copious evacuations followed the operation; but the patient gradually sunk under symptoms of peritoneal inflammation. When the body was opened, the protruded gut was found just as discoloured as when it was replaced. Violent inflammation appeared in the neighbouring peritoneal surfaces, and this extended in a lessened degree over the cavity. When the gut was taken out and inflated, it was deeply constricted, where it had been embraced by the stricture, and reduced to one-third its natural diameter. The indentation was the most remarkable opposite to the edge of Gimbernat's ligament, and the mucous membrane exhibited at the corresponding part a long linear ulceration.

SCIRRHUS OF THE TONGUE.

Sarah Charles, ætat. 42, a thin woman, was admitted into St. Bartholomew's Hospital, Nov. 13th, 1827, under the care of Mr. Lawrence. About nine months before, the left side of the tongue became swollen, hard, and stiff, without much pain. The sense of taste on the affected side was hardly impaired, nor was the health deranged. The swelling and induration increased, so that she found it necessary to have some of the molar teeth of the lower jaw extracted. At the time of admission, the posterior and lateral part of the tongue, as far as the middle, was swelled, hard, and knotted, but without ulceration. The change of structure affected the left arch of the palate, and

extended deeply into the substance of the organ. The aperture between the mouth and pharynx was considerably contracted. The glands beneath the jaw were not at this time enlarged. She complained of a sense of tightness and fullness about the upper part of the throat, and the nose felt as if stopped up; she was unable to swallow solids; her breathing was difficult, and during the night she often felt as if suffocated, and was obliged to sleep with her mouth open. Her articulation was imperfect; she suffered but little pain, but complained of a sense of fullness and tightness in her head; her appetite was impaired, and her bowels costive: she was thin and emaciated. Opiates were given at night, and the bowels kept open by the extract of colocynth. Nourishing fluid diet, and port wine. The difficulty of breathing and sense of suffocation gradually grew worse; fluids were swallowed with difficulty; she became more restless at night, and more emaciated. The enlargement increased and extended into the fauces, and two or three glands in the neck swelled.

Jan. 9. She complained of great pain in her stomach, shortly after which she vomited and coughed up about two pints of fluid red blood; she was nearly suffocated, and her extremities became cold. Opium was administered, and warm bottles applied to the feet. No further bleeding took place, and she continued in much the same state as before, until Sunday, Jan. 13th, when she was suddenly taken with vomiting of blood; the house surgeon, Mr. Weekes, was immediately sent for, but before he reached her, she expired. About a pint of fluid blood had been vomited.

Examination Thirty Hours after Death.

The loose portion of the tongue scarcely exceeded its natural size, although it was pushed upwards against the palate, and projected backwards, so as to press on the larynx and pharynx. Hence, the motions of these parts were impeded, and mastication, deglutition, and articulation, were executed imperfectly and with difficulty. A large mass of genuine scirrhous structure occupied the principal part of the interior of the tongue, its growth having filled up the space between the rami of the lower jaw, and forced the tongue upwards and backwards in the manner already described.—The disease extended across the middle of the tongue, nearly to its right side, and downwards amongst the muscles of the basis for about two inches. It was covered by the muscular substance of the organ, except at the left side, where it formed a hard tubercular prominence, jutting into the space left by the removal of the teeth, but not ulcerated. It was a dense unyielding texture, sounding under the edge of the knife, of a light yellowish grey colour, and finely striated; nearly resembling, on the whole, scirrhus of the female mamma. Its circumference was irregularly blended with the muscular fibres, not marked by a defined edge. The left tonsil and palatine arch were thickened, indurated, and in a state of foul ulceration, while the corresponding course of the os hyoides, denuded of its periosteum, projected from the surface of the ulcer. When these parts were more carefully examined, an artery as large as a crowquill was seen remaining in the tonsil towards the ulcer, in which it ended by an open orifice; thus, the source of the two bleedings was explained. Two or three absorbent glands at the side of the neck were diseased; one of them was enlarged and scirrhous; in another, lower down, the change of structure was incipient and partial. A considerable quantity of blood had passed down the œsophagus into the stomach, and the trachea, with its ramifications, was filled with coagulum. In some places the blood had passed into the air-cells, which were seen as if injected with it. On cutting into the pulmonary substance, the lungs were remarkably healthy, and merely exhibited a mottled bloody stain in the few spots where the air-cells had been thus injected. In all other parts they were full of air, the escape of which was prevented by the blood in the air passages; hence, when the chest was opened, the lungs did not collapse, but rather protruded at the aperture.

Mr. Lawrence observed, that the dissection of this case afforded a valuable practical lesson, showing, that although disease may seem confined to a small portion of the organ externally, it may extend so far within, as to render attempts at extirpation hopeless. He had seen two cases in the last year, in which disease had returned and proved fatal, after the apparently complete removal of the scirrhous part. There was not, however, much swelling or hardness in the original seat of mischief, nor any ulceration, but the patients were destroyed by scirrhous swellings under the jaw and at the side of the neck, proceeding at last to an immense size, and obstructing deglutition and respiration. They both perished after excessive and protracted sufferings, from which the present patient escaped by the ulceration of the artery in the tonsil.

DEEP-SEATED INFLAMMATION OF THE ORBIT, AND PROTRUSION OF THE EYEBALL;

Morbid growth behind the Globe, and destructive Inflammation of the Eye; Extirpation of the Orbital Contents.

John Banting, æt. 30, was admitted into Henry's Ward, April 4th, 1827, under the

care of Mr. Lawrence. He came from Brighton in an open cart in one of the coldest days in January, and suffered severely in the journey; his left arm and leg were quite benumbed, so that he could not move them, and he did not recover the use of them for three or four days. At the same time he experienced pain in the left eye; in about a fortnight after his journey from Brighton, the eyelids swelled, and the lower lid at the same time became everted, and the conjunctiva between it and the globe swelled up, according to the patient's description, like a bladder. He had distracting pain in the eye and whole side of the head, and was in constant agony night and day, so that he got no rest until he was completely exhausted by suffering. During this time he was cupped in the left temple, had leeches applied about the eye six or eight times, and had the head shaved and blistered, with only partial and temporary relief. The sight became imperfect a month before his admission into the Hospital, when he came under the care of Mr. Vincent, who punctured the tumid conjunctiva, without giving issue to any matter. Mr. Vincent requested the opinion of Mr. Lawrence on the case, and, after consultation on it, expressed his desire that Mr. Lawrence would take charge of the patient.

April 4. The eye-ball is pushed forwards and a little upwards, projecting, by comparison with the other, about three fourths of an inch. The upper lid, which is slightly inflamed, is protruded in an equal degree; the patient is unable to elevate it, and it cannot be drawn up sufficiently to expose the cornea without difficulty. The lower lid is everted by a considerable swelling of the conjunctiva, which is red, and loaded with serous effusion. This swelling has existed from the beginning of the affection; the patient says that it was then larger, and appeared like a bladder of water. The redness extends to that portion of the conjunctiva which covers the lower part of the globe. The rest of the conjunctiva oculi having its natural paleness. No change is observable in the globe; the iris moves freely, but vision is very imperfect; he cannot see even large letters. A firm swelling, without any fluctuation, is obscurely felt within the inferior margin of the orbit; there is still considerable pain, although much less than before. Mr. Lawrence considered it to be a case of abscess deeply seated in the orbit; the severe pain indicated acute inflammation and suppuration, the tumefaction accompanying such an affection would cause displacement of the globe, and the latter would account for the imperfection of vision. In conformity with this opinion, Mr. Lawrence made a puncture through the skin at the lower and outer part of the orbit, carrying a double-eged knife more than an inch deep, in the situation of the firm swelling, and moving it laterally with some freedom, no pus followed. Bread poultice; opening medicine daily; milk diet.

10. The wound began to discharge pus copiously three days after the puncture, and that discharge continues; a probe passes in, to the depth of one inch and a half. The pain is quite removed; the tension of the globe and the swelling of the lids lessened, and the sight improved.

28. There is a continued copious discharge of matter; the upper lid can be elevated, so as to expose the cornea: he can read small print. Remaining nearly in the same state, he left the Hospital on the 3d of May, and attended occasionally, that the progress of the case might be observed. After some time, the eye became rather painful, and he was re-admitted on the 25th of May.

The partial protrusion of the globe, the red œdematous swelling of the conjunctiva, and the purulent discharge from the puncture, remain as when he left the Hospital. A probe passes into the opening about two inches, and can be moved in different directions. Pressure on the eyeball forces out matter from the puncture. There is a firm swelling below the edge of the orbit, leading to a suspicion that the antrum is affected; the cheek and left half of the lip feel benumbed. Leeches have been applied two or three times, and a poultice is continued. He takes aperient and alterative medicines. On carefully examining the part with a probe, bare bone was found at the bottom of the orbit, and the patient then began to have discharge of matter into the left nostril; since that, he found, in blowing his nose, that air was forcibly expelled through the puncture, and he shows the fact without trouble or uneasiness.

August 6. Since the last date, the puncture under the lower eyelid has closed; there has been occasional discharge of matter into the nostril. He has suffered considerably from pain behind the orbit, and on the side of the head, the inflammatory symptoms in the part being rather increased. For these, leeches have been several times applied, generally with temporary benefit. A fortnight ago, a fresh and deep puncture was made into the orbit, just behind the external canthus; there had been a previous increase of swelling and redness about the eye, with great constant pain, and a rather deep-seated hardness was felt, in which, however, no fluctuation could be distinguished. This puncture, in making which the instrument was carried nearly two inches deep, went into the cavity formerly exposed; a few small granules passed out with the blood, but no

distinct matter. Air passes out of the opening on blowing the nose, as it did in the former case; the probe goes deep into the orbit, and bare bone can be felt with it towards the lower part. A tolerably free discharge has taken place from this opening, and there was at first some relief, but the pain has returned, and the redness and swelling of the lids, with the œdematous protrusion of the conjunctiva over the lower (particularly the latter) are as great as ever. As the painful symptoms continued, in spite of repeated abstraction of blood locally,—as the discharge had ceased, and the wound healed,—and, as a firm, rather prominent, substance could be obscurely felt towards the margin of the orbit, it was thought advisable to cut down on this part, with the intention of removing it, if any distinct tumour should be found. The external commissure of the lids was, accordingly, divided, and a small piece of indurated substance removed, without any adequate cause of the symptoms being discovered. He continued suffering very severely from pain about the orbit, and side of the head; and numbness of the cheek and jaw, with increased redness of the eye and lids, and greater protrusion; these symptoms being only mitigated in degree by local bleedings and narcotics. The protrusion of the globe was now more than an inch; the pupil largely dilated, the iris motionless, and vision lost, except the mere power of discerning a large object, or distinguishing light from darkness.

The protrusion slowly increased, the vessels of the conjunctiva became more turgid, and the general redness of this membrane was greater; the pain in the surrounding parts continuing, so as nearly to prevent rest. In November, the conjunctiva of the globe, which had hitherto remained nearly natural, became of a deep red, while the cornea, at the same time, inflamed, lost its transparency, ulcerated, and then sloughed. The humours of the eye and some blood escaped when the dead part separated, and the iris protruded, so as to form an irregular dirty-looking mass, with a depression in the centre.

Mr. Lawrence observed, that the destructive inflammatory, ulcerative, and sloughing process of the cornea, with escape of the humours which the eye had undergone in this case, resembled what Magendie had described as the consequence of dividing the nerve of the fifth pair in animals; and was probably owing to an analogous cause, as the morbid growth which caused the protrusion must certainly have compressed, or otherwise injured, the ophthalmic branch of the nervus trigeminus. The evacuation and subsidence of the globe did not diminish the patient's sufferings, nor the external swelling, which, on the contrary, still increased.

As the complaint had now been progressive for many months, in spite of active treatment, both local and general, and as the health, although in other respects perfect, was suffering under the constant severe pain, Mr. Lawrence determined, with the concurrence of his colleagues, and of several other gentlemen who had seen the case, to remove the contents of the orbit; the patient feeling persuaded that the operation afforded him the only remaining chance of relief, and being, therefore, not only willing, but desirous of submitting to it. Accordingly it was performed on Thursday, December 6th. The palpebræ were freely separated at their external commissure, and then turned aside, so as to expose fully the anterior aperture of the orbit, the entire contents of which were detached from the cavity, by dissecting close on the surface of the latter, first below, then above and at the sides, until the posterior connexion alone was left. The latter was then divided by a knife, curved on its flat surface, the patient appearing to experience excruciating agony at the moment of dividing the muscles and nerves. The mass, which was firm and almost hard, completely filled the orbit, so that the dissection was necessarily carried close to the bone, and performed slowly. As the ophthalmic artery bled profusely, a conical compress of lint was introduced into the orbit, and held for some time on the vessel; this was removed in the evening, as Mr. Lawrence objects strongly to the introduction of any foreign body into the cavity after this operation. The divided commissure of the lids was united by two sutures; and the tumid upper eyelid closed the front of the orbit. He took thirty drops of laudanum at night.

7. He slept at intervals, and passed a comfortable night; bloody fluid had oozed between the lids, but there had been no actual bleeding. The palpebræ are swollen and bright red; the face is flushed, and he has slight headach, thirst, and foul tongue. Twelve leeches around the margin of the orbit. Saturnine lotion; a dose of calomel and jalap. The inflammatory and febrile symptoms had disappeared on the next day, and the pain of the brow, head, and cheek, which had distressed the patient for so many months, was almost gone. Recovery now proceeded rapidly and uninterruptedly, the surface of the orbit granulating, and producing a vascular substance, which filled up a large part of the cavity; rest and appetite returned, while meat diet speedily restored flesh, strength, and good looks. He was discharged quite well on the 28th December, but has shown himself at the Hospital in perfect health within two or three days.

The right eye, which had been sympathetically affected before the operation, is now as strong as ever. During the progress of the disease in the left, the right had felt weak, and occasionally painful on exercise, so that he could not use it freely.

The mass removed from the orbit consisted of the collapsed and shrunk eyeball in front, with a hard and incompressible substance behind, extending to the point at which the nerves and vessels had been divided. The recti muscles, unaltered in appearance or texture, covered this substance, the exterior of which had the usual appearance of the orbital fat, except that it was more dense. An incision was carried from before backwards, directly through the centre of the entire mass. An apparently recent coagulum of blood separated the sclerotica from the choroid coat, the latter, with the retina, being compressed by the coagulum into a thick cord, extending from the optic nerve to the iris; there was no trace of humours; the sclerotica was natural; the morbid growth adhered to it closely behind, and the optic nerve proceeded through the centre of the mass. The latter was a dense compact structure, of schirrous firmness, resisting the edge of the knife; its exterior consisted of a light grey texture, very much like that of a scirrhous breast, while in the interior this was intermixed with a light yellow, yet firm substance, resembling what is seen in scrofulous diseases.

Mr. Lawrence observed, that he used the expressions "scirrhous firmness" and "scirrhous structure" merely to describe the character of the morbid production, and not to convey an opinion that it was of a carcinomatous nature. He did not entertain the slightest apprehension that disease would return; yet, on reviewing the history of the case, and comparing with its course the bulk and texture of the morbid growth, he was satisfied that the latter would have continued to enlarge, and the sufferings of the patient would have continued to increase, had the disease been left to itself, so that the operation must be considered to have been absolutely necessary.

Mr. Lawrence considered this, in the first instance, as common inflammation and suppuration, and he originally entered it in his case book as "deep-seated suppuration in the orbit." The symptoms corresponded in all respects to those of the few instances which he had seen of abscess in the orbit. He would not have expected, *a priori*, that a common cause, namely, long exposure to severe cold, would produce in a healthy young man a diseased growth similar in external character to the malignant changes of structure.

According to the usual arrangement of diseases, this case would come under the indefinite term of *Exophthalmia*, under which all affections, whether of the globe itself or of surrounding parts that cause displacement and protrusion of the eye, are jumbled together. No diseases ought to be named from such a circumstance as this, which is merely an effect or symptom. If the name be, however, retained, we should observe the distinctions made by the German ophthalmologists. When the eye is merely protruded, and not altered in any other respect, they call it *exophthalmos*; if the displaced eye be inflamed, they term it *exophthalmia*; when the eye falls out of the orbit, in consequence of its posterior connexions having been divided, or from paralysis of all its muscles, they call the case *ophthalmoptosis*. Mr. Lawrence has never seen the latter occurrence.

ERYSIPELAS.

To the Editor of THE LANCET.

SIR,—On all disputed doctrines in medical science, it seems desirable to obtain information from competent practical persons, *whether their mode of treatment has been successful or not*, because their failures as well as their success must convey valuable information. Under the influence of this impression, I offer you my unvarnished contribution towards an elucidation of the nature, and the best mode of treating, erysipelas. I have found this disorder exceedingly prevalent in this district, and I account for this frequency from three concurrent causes: the occupation of the inhabitants, which is almost wholly in spinning or weaving cotton in mills at a temperature of about 75° Farenheit; the climate, which is generally very damp, with frequent cold winds, the natural results of a deep dale in the mountainous region of the Peak, and the many thousand acres of moorland surrounding us on all sides; and lastly, the food, which for the most part consists of viands that disorder stomachs that are not very vigorous. The practice I find most efficient leads me to consider erysipelas as wholly symptomatic, and that it always depends on some derangement in the chylopoetic system; and, whether the disorder assume the red, shining, burning character, or the yellowish hue, and peculiar œdematous aspect, and whether accompanied by vesicles or not, or preceded by, and therefore seeming to be caused by wounds, the principle of my practice is the same, and this is to clear out the passages with all convenient dispatch; and for this purpose the following medicines are generally used:

℞ *Pulv. ipecac.* ℈j. *ft. emetic. imprimis sum.*
℞ *Pil. hydr. gr.* x. *hord somni sumantur. vel,*
℞ *Subm. hydr. gr.* vi.
Pulv. jalapæ, gr. viij.
Syrupi, q. s. ft. bol. h. s. sum.
℞ *Magn. sulph.* ℥i.
Sodæ carbon. ʒi. *ad.* ʒii.
Aq. menth. p. q. s. ft. ℔ss. *M. fiat mistura, sum. cochlearia* ij. *4d q.q. hord.*
℞ *Plumb. superacet.* ʒss.
Aquæ distill. ℔j. *ft. lotio.*

to be applied constantly to the part in the more acute erysipelas, but if instead of the shining, burning, and red aspect of the parts they assume the yellow hue and œdematous swelling, with probably small vesicles, the following lotion is substituted, but in other respects the treatment is the same:

℞ *Liq. ammon. acet.* ʒij.
Spt. vini R. ʒi.
Aq. distillat. q. s. ft. ℔j. *M. ft. lotio.*

the parts to be frequently bathed with it. It is often necessary to repeat the pil. hydr. two or three successive nights, the bowels being kept open by the alkaline aperient; in severe cases I have given the pil. hydr. twice a day; rarely has it been necessary to bleed, and I have never had recourse to scarifications of any kind, nor has matter ever formed under the integuments. In one extreme case, where the head, and successively every part of the body was involved in the disease, I varied the practice, and often in the use of evacuants and bleeding I employed cinchona and liq. am. acet. in full doses every four hours. Only one fatal case of erysipelas has occurred in my practice during my residence in this district; in which time, I think, at the lowest calculation, I have had more than fifty cases, and in the solitary unfortunate case, I have no doubt the result was wholly the effect of neglect.

In conclusion, I beg, Sir, to be understood as only submitting my practice, and the results, to the consideration of your readers. I presume not to think myself competent to say, how in all cases the disorder should be treated, because I doubt not that peculiar occupations, locopositions, atmospherical peculiarities, and vicissitudes, will all modify the affection, and may therefore require other means than those I have found so efficient.

I am, Sir,

Your obliged and most obedient servant,

PAUL SLADE KNIGHT.

Glossop, Derby, Dec. 31, 1827.

THE LANCET.

London, Saturday, January 26, 1828.

In the violation of justice always implied a breach of the law, we should have little difficulty in proving the illegality of the exclusion practised by the Dublin College of Surgeons, after what has been advanced on the iniquity of that usage. Though this supposition is not invariably true, yet we conceive we shall be able to show that the College cannot plead in its defence the usual apology of "summum jus summa injuria;" but that, to a contempt of equity, it has added a wilful infraction of its own statutes. To reduce this charge to a more demonstrative form, it will be necessary to examine the spirit of that clause of the charter, which it has assumed as a justification of its conduct; its literal meaning, as interpreted by the common sense of the medical profession; and the precedent established by the very founders of the College. For the accomplishment of the first of these intentions, a statement of the circumstances under which the College charter was conferred, presents, perhaps, the best means; but of these circumstances we cannot speak from personal observation, nor does any written record remain, from which information on the subject could be derived. Tradition, however, which is quite sufficient for our purpose, in a matter of such recent date, represents the condition of the surgical profession in Ireland of a most anomalous character, antecedent to its incorporation. It was composed, in short, of the most heterogeneous materials; of many who served apprenticeships, and of more who never had a master; of persons who had licenses, and of others who practised by a sort of hereditary right, deduced from their fathers; of the members and graduates of every College, British, Scotch, and continental; of individuals, in fact, who acquired

a knowledge of their art in every manner and place in which information could be collected, and a faculty for its practical application in every shape in which diplomas were granted at the time. It was for the legal qualification of this miscellaneous mass of practitioners, as a security to the public against empiricism, that the present charter of the College was partly granted: and now, we ask, could any king or legislature, knowing the state of the community on which this charter was to operate, have intended that it should exclude the majority from the possibility of complying with those conditions, for the fulfilment of which it was obviously designed? Of the circumstances of the profession, the government could scarcely have been ignorant; and if they were, the conduct of the founders of the College must have completely dispelled all doubt from their minds on the subject. For, how did the latter commence the formation of the College? The assertors of exclusion, and the excellence of the indenture system, would, of course, reply, by at least selecting, as the first members of the corporation, such practitioners only as had served an apprenticeship, and possessed a legal qualification from some other College. Now, this was not the plan adopted by the originators of the Irish College; they followed a much more simple process in the composition of the embryo establishment. Instead of making a selection from the indentured and licensed portion of their surgical contemporaries, they simply opened, we believe, a subscription, by the payment of which any practitioner, no matter how or where educated, became, by virtue of his donation, a member of the intended institution; and there are, or were very lately, surgeons of some eminence in Dublin, who thus became members of the first establishment, without having previously obtained a license, or subsequently undergoing any examination whatever. We have here, in the conduct of the very founders of the College, arrived at another proof, that exclusion formed no part of the spirit of the charter; and that, however it may have been worded, the mere serving of an apprenticeship was the only condition which it required from the candidate to be admitted to an examination. To assume conclusions contrary to those which we have deduced from the preceding facts, would be to accuse the legislature of the folly of enacting a law, which must have defeated its own objects, and the founders of the College of the inconsistency of intending to supply all Ireland with surgeons by their own apprentices, the first crop of whom would not, of course, be matured for service sooner than five years! If we turn to the literal meaning of the disputed clause in the charter, we shall find it as incapable of ambiguous interpretation, as its spirit is of being misunderstood. The words of the charter are, "that the censors and president, or vice-president, shall examine every person who has served an apprenticeship to a regularly-educated surgeon, and who intends to become a member of the College." Let us suppose a jury of English, Scotch, French, German, or Italian surgeons, called on to decide the literal meaning of these words:—what would be the verdict? Would they declare that in the whole world, there was not a regularly-educated surgeon without the pale of the Dublin College of Surgeons; and that, according to this perverted clause of the charter, none but their apprentices were entitled to an examination? By such an interpretation, they must, of consequence, cut off the most eminent practitioners and writers in the profession of surgery, from the honour of being considered as regularly educated, and deprive them of the right of educating others. But in what, it may be asked, does a "regularly-educated surgeon" consist; or can any person help us to a definition of that *rara avis* peculiar to Ireland? Our reading does not supply us with any such definition, nor do we believe that one

has ever been given; and for the simple reason that mankind, and writers on medical education, have justly considered every surgeon, competent to a discharge of his duties, as regularly educated, no matter how or where he acquired his knowledge.

The College of Dublin, however, does not stop at the mere absurdity of refusing examinations to the pupil of a surgeon, whom the public look on as both qualified to practise and teach the art of healing; it transcends the bounds of time and reason, and requires that the master himself, and the master's master, and all his professional ancestors, should have been regularly educated, or in other words, have served an apprenticeship. It is obvious, that if this doctrine were fully enforced, it must annihilate the College itself as a corporate body, and deprive it of the power of examining even its own pupils; for not one of its present members, as we have shown, could establish a claim to a "regular education" by descent, higher than the establishment of the institution. To obviate this objection, the College has adopted the happy expedient of a double interpretation of the obnoxious clause of the charter, one of which it applies to the cases of aliens, as they may be called; the other to its own apprentices. Thus, when one of Mr. Cusack's apprentices presents himself with his papers, the Court of Censors never demand a higher pedigree than an indenture to that gentleman; but when the pupil of any other surgeon, not of the College, seeks an examination, the doctrine of hereditary education is called into action, and the applicant is first compelled to furnish, on oath, the qualities of all his surgical forefathers, and then, like Mr. Leslie, dismissed, as not having made good his title. The object of this double interpretation it is almost superfluous to point out, being merely to secure apprentices to the members of the College. From these few observations, it is evident that the College has violated the spirit of its charter, and tortured its literal meaning into a pretext for the accomplishment of purely selfish purposes; and that it has done so, not in ignorance of the true sense of this clause, the fact of having consulted Mr. (now Baron) Plunkett on the subject, who gave an opinion contrary to the one acted on by the Court of Censors, is a sufficient testimony. Dr. Macartney, of Trinity College, against whose apprentices the clause was especially enforced, also, we believe, took the advice of the law authorities on the question; and the result was, that he posted up in the passage to his lecture-room, the words we have quoted from the charter, if rightly informed, with an explanation to the effect, that the College could not legally refuse an examination to the apprentice of any surgeon. In the case, too, of Mr. Gregory, which was agitated for some time in the Court, the College was obliged to concede his claims, though they were not considered entirely satisfactory. In fact, there is not one of the members of the College who does not acknowledge, individually, that the exclusion is illegal; yet this conviction does not, it seems, prevent them collectively from undertaking an expensive law-suit in support of a system which, to complete the measure of their inconsistency, they themselves are in part about to abolish, by the indiscriminate admission of all candidates to an examination. In what light their Lordships of the King's Bench may look on such a palpable contradiction, or what their decision may be in the case, we will not presume to anticipate; but we hope we shall have to congratulate the College on its defeat, as we sincerely believe that its success would be highly detrimental to its true interests, and the advancement of surgical science in Ireland.

If any portion of that love of science and spirit of inquiry, which led to the establishment of the Veterinary College, existed amongst its present Governors, we are in-

clined to believe, that the unfortunate pupils who now attend there would feast on a very different repast than the one now submitted to their intellectual appetite. Of Mr. Coleman's capacity for discharging the arduous duties of teacher, we certainly entertain a very humble opinion; but as the students are *compelled* to enter to his lectures and the Veterinary practice of the College, before they can obtain their diploma or certificate of qualification, it is not right that they should be prevented from hearing the one or seeing the other, unless from some uncontrollable cause. These remarks are elicited from us, in consequence of the manner in which the affairs of this Institution have been conducted during the present session, and at which, without exception, the students, we believe, feel dissatisfied, disappointed and indignant. The attendance at the stables, by the Professor and his *Sub*, is of the most irregular description; and scarcely an observation of the least practical importance, on any case submitted to their notice, is ever heard to drop from the lips of either. Mr. Coleman professes to deliver a course of lectures, which we regret to say, he is incapable of accomplishing, from frequent attacks of gout, that confine him to his bed. It may be well, and is, without doubt, just, "that the sins of the father should be visited on the children," but there is no authority for showing, that the misfortunes of Mr. Coleman should be inflicted on his pupils. If Mr. Coleman be incapable of delivering his lectures, it is his duty to provide a person who is capable of executing that office, which, we believe, is not one of a very arduous description, consisting only of reading an old manuscript, written some twenty-five or thirty years ago. Of course, we place no value on the doctrines taught by Mr. Coleman; but as the pupils must exhibit some knowledge of them, before they can obtain their diploma, it is an act of gross injustice to withhold from them the only means by which these can be acquired. Mr. Coleman cannot plead poverty as his excuse for not obtaining the necessary assistance, as his income cannot amount to less than *three thousand pounds* a-year; besides, is there not a sub-professor, who also delivers lectures on his own account, at a charge *distinct* from that of the professor? Surely, when this gentleman was appointed to his office, it was intended by the Governors that he should occupy the chair of his superior when vacant from illness or any other cause. So that the current of information might not be abruptly checked, and the student be thus deprived of the only supposed advantage sought for in his attendance at this institution. We beg seriously to call the attention of the Governors to the subject, and can assure them with much confidence, that if they carefully and strictly investigate the medical department of their College, they will discover more of corruption, negligence, and imbecility, than they can believe to exist, from a mere superficial examination.

From the specimens we have recently had of Mr. Earle's want of judgment, perception, and candour, we almost look upon his name as a blot on our pages, and write it with disgust; but as Mr. Earle pretends to be a stickler for morality, we recommend him, instead of attempting to poignard a "foreigner" in a poor man's abdomen, by plunging a trocar into his gut, and instead of falsely charging us with having wilfully "falsified" the reports of his cases, to look to his own broken promises to the students, and thus remove "the beam from his own eye," before he attempts to pluck the "mote" from that of others. The prospectuses of the St. Bartholomew's school delivered to the students in September and October, contained the following announcement:—

"Clinical Lectures
By Henry Earle,
Surgeon to the Hospital."

And the bills just issued for the second act of the session, contain a similar announcement. Now we beg to ask of this chattering cock sparrow, whether he has delivered *three* clinical lectures during the present season? We are informed, indeed, that he has not delivered one.

Before you again charge us with publishing "false reports," look, little Harry, to your own false promises to the deluded and plundered student.

Roderick Macleod's Poetry.

Roderick Macleod, who, with the true tact of a modern Athenian, took a Greek poem on astronomy for an anatomical treatise, has been trying his hand at English poetry. Let the reader figure to himself a bear in a boat, a dancing Cyclops, a cow in a drawing-room, a Dutch bargeman aspiring to be graceful, or a Scotch sow essaying a hornpipe, and he may then form some notion of poor Roderick attempting to be poetical. The *bourgeois gentilhomme* in Moliere, on being made sensible of the difference between prose and verse, is delighted to find that he had been all his life talking *prose*. Poor Roderick's is a more hopeless case; he is not only as ignorant of the distinction between prose and verse as Moliere's *bourgeois*, but he is evidently incapable of ever apprehending the distinction. But if Roderick is in a worse condition than the *bourgeois* in this respect, he has the advantage of him in another; for, as no difference can be detected between Roderick's poetry and his prose, he may solace himself with the persuasion that he has been all his life discoursing *in verse*. Macleod's poetry in the Yellow Excrescence reminds us of some lines to the memory of Shenstone, written by M. Girardin, a Frenchman, who had acquired, like Roderick, a smattering of the English language, and who had the simplicity, like Roderick, to suppose that he could write English verses. The following was the Frenchman's composition, which, to say the truth, is as successful an attempt at English poetry as any thing produced by Macleod.

This plain stone
To William Shenstone;
In his writings he displayed
A mind natural
At Leasowes he laid
Arcadian greens rural.

These lines furnish a good illustration of the hazard of attempting to write poetry in a foreign language; and assuredly the language of the Muses, as well as that of sense or science, is foreign to Roderick Macleod.

Brodie and Joe Burns.

"It is my intention," said Brodie, addressing himself to that facetious personage, Joe Burns, "to write a monograph; and I wish, Joe, you would help me to a subject that nobody has ever written upon before, and that nobody will ever think of writing upon hereafter." Joe paused a moment; cast a sly leer at the querist, and, imitating the 'eminent surgeon's' raw, provincial accent, rendered more dissonant by his awkward attempts to make it pass for an agreeable dash of Doric, replied, "I advise you to write *your own panegyric*."

Translation of the Greek Epitaph in our last number.

To the Editor of The Lancet.

Sir,—Permit me to offer a translation of the Greek epitaph which appeared last week in your Journal. One word in it—the name of the lithotomist—was not very clear in my copy of The Lancet, and not

knowing exactly what to substitute, I at first took a poetical freedom with the name of my old favourite BEN JONSON. Any other dissyllable, however, will do as well as JONSON; and as some of your readers may suggest a better, I have left a space to be filled up by the imagination, or by the *memory*. As for the monosyllable in the last line, it is essential to the pith of the epitaph. I won't part with BEN, Mr. Editor,—I can't spare BEN; for, in the first place, the *verse* is made, which is a better reason than the celebrated one of the Abbé VERTOT; and for a *raison de plus*, I should have no difficulty in showing, that BEN is far more neat and *appropriate* than JOE, TOM, DICK, or any other monosyllable that could be substituted for it.

I remain, Sir,
Your obedient servant,
THOMAS HILL.

EPITAPH.

Here lies a youth; and why the youth lies here,
Since ——— cut him for the stone, is clear.
Uncut, the youth from all disease was free;
The stone BEN cut for, is the stone you see.

CORONER'S INQUEST ON JAMES SMITH.

To the Editor of THE LANCET.

St. Mary-le-bone Infirmary,
Jan. 22, 1828.

SIR,—The statement of a part of my evidence before the Coroner, as published by you, in your Journal of last week, and which was copied from the *Times* of January 12, is incorrect; and consequently, your observation "ignorantly answered," is false.

No such question as the following was put to me:—

Coroner—"If any narcotic poison had entered the stomach, would it not have caused the deceased to vomit:"

Witness—"Certainly it would."

I am, Sir,
Your humble Servant,
WM. F. GOODGER.

The discreet and gentlemanlike tone of the above communication cannot fail to strike our readers. Our opinion of Mr. Goodger's ignorance was, of course, contingent upon the accuracy of the report in *The Times*; but, as the columns of that Journal were, no doubt, open to Mr. Goodger, for the correction of any misrepresentation, it is a little singular, and somewhat unfortunate for this gentleman's reputation, that he should not have disavowed the testimony ascribed to him, until we felt it our duty, as Medical Journalists, to comment upon the ignorance which that testimony would have established.

UTILITY OF MR. BRACY CLARK'S EXPANSION SHOE.

To the Editor of THE LANCET.

SIR,—The interest which you have taken in the subject of expansion shoeing, induces me to request the insertion of the inclosed letter. With many thanks for the assistance you have afforded in so many instances to the neglected art which I profess, I beg to subscribe myself

Your constant reader,
CHARLES CLARK.
Sidmouth Mews, Gray's Inn Lane.

"36, Stamford St. Blackfriars,
Dec. 31, 1827.

DEAR SIR,—I feel happy in bearing testimony to the very great advantage of your Expansion Shoe, over that of the common one, which has been proved in the following instance. My thorough-bred horse, Napoleon, became very much contracted in the feet, in consequence of having been kept shod for two years and a half, (mostly in the stable,) without being used, during the time I was confined in Ilchester gaol; at this time he was rising six years old, and having done but very little work, in all other respects he was quite in his prime. Finding that from the numbness of his feet he became unsafe to ride, and unpleasant to drive, in consequence of very severe cutting, I was induced to send him always to the Veterinary College to have him shod; still he got worse and worse, his fetlock joints became much enlarged and callous, from the constant battering of his feet against his legs, and in spite of the wadded boots which he constantly wore, he seldom returned from his work without his legs being in a gore of blood, and at length, by the *speedy cut*, he became so lame as to be totally unfit for use; being a favourite, I sent him repeatedly to the Veterinary College, where he remained for a month or six weeks at a time, without obtaining the desired relief, and Mr. Sewell

recommended me to dispose of him as useless. Accident threw me in your way, and you recommended the Expansion Shoe, which was immediately tried with success; before he had worn the first set of shoes half out, he was so much relieved as entirely to get rid of the cutting. He has been now shod with your expansion shoe twelve months, during which time he has been in constant work in my vans over the stones in London, has never cut since, and is now as sound and with as good feet as he had when he was three years old, and instead of being totally useless, he is now, (solely owing to your shoeing) the most useful and valuable horse I have.

I am, dear Sir, yours very sincerely,
HENRY HUNT.

P. S. When I related this case to Mr. Sewell, he admitted that the expansion shoe was the perfection of shoeing, if it could be made to keep on as well as the common shoe. In this you have now completely succeeded: since you have shod my horse, I find the shoes remain on firm till they are worn out, although my horse goes over the stones of London, with a heavy load, four days in a week on an average, from twenty to thirty miles a day. The shoes he has on now, have been in wear upwards of five weeks.

Our own experience of the advantages arising from the use of the EXPANSION SHOE over the common one, is equally conclusive and satisfactory with that of Mr. HUNT, and more than warrants all that we have advanced in favour of Mr. BRACY CLARK'S principles of shoeing, founded on his discoveries of the structure of the horse's foot.

A correspondent has favoured us with the following witty prospectus.

"NEW MEDICAL JOURNAL,

On improved Principles.

THE public are respectfully informed, that on Saturday, January 26, 1828, will be published, the first number of a new Medical Journal, to be entitled,

THE ACTUAL CAUTERY.

The great object of the associated editors, is the earliest possible dissemination of '*sound medical* and *chirurgical* knowledge' throughout the universe; and all contributors may rest assured, that within ten minutes of the first discovery of any fact in medicine, surgery, and the collateral sciences, it shall be put to press, and with all possible haste made known to the public.

The office will be open at all hours for the reception of communications, and the clerk is directed to note carefully, by a stop-watch, the minute at which they are received, in order to ensure to gentlemen the priority of their discoveries.

The name of this Journal will be a sufficient guarantee to the public at large, of the determination of the editors to spare no individual in any department of the profession. They will, however, not be answerable for libels, in a court of law, but have engaged, at a high salary, a gentleman from the sister kingdom, to give all other satisfaction that may be required. Another object of this Journal, is to develop the latent causes of the present convulsed, and distracted state of the profession in this country, on which point the medical world have of late been most grossly misled.

Attached to no party, tools of no junto, organs of no faction, actuated by the purest public spirit, disdaining all reward, save the gratitude of posterity, the determination of the editors is to outstrip the '*March of Intellect*,' to set at rest every disputed point in medicine, and to reduce the science to mathematical certainty.

One of the new features of this Journal is, that each number will contain at least *two* leading articles; the reviews will be spirited; no epigram will be inserted that has not *some* point; and the lives of eminent practitioners will be given, as soon as they are known to be '*in Articulo Mortis*.'

Correspondents have been engaged, at a great expense, in all parts of the world, except '*Otaheite*,' where arrangements will be shortly entered into with the most distinguished *Fellows* of the Royal College of Physicians in that country.

N. B. The Journal will be published regularly on Saturday mornings, but may be had in all the shops on Thursday, at 2 o'clock. Members of parliament are engaged to frank for country circulation.

P. S. The different colours of the rainbow being already occupied by publications pretending to similar character, the present Journal will appear alternately in a black and white cover, to imitate which will be deemed '*literary plunder*.'

The unsold copies of this Journal, bound in calf, at the end of the year, will be distributed among such of the correspondents as have favoured the editors with the longest reports, cases, essays, &c. &c. during that period of time.

*** All communications, for the present, to be addressed to MONSR. TONSON, at our office, *Warwick Street*, Golden Square."

A Treatise on the Cutaneous Diseases incidental to Childhood, comprehending their Origin, Nature, Treatment, and Prevention. By WALTER C. DENDY, Surgeon to the Royal Infirmary for Children, &c. 1827. Churchill, 8vo. pp. 289. London.

WHEN we consider the truly Protean character of diseases of the skin, an arrangement which tends to simplify the study of them, will, in the present state of our knowledge, be regarded as desirable. In a practical view, it is not sufficient that a classification consist merely of a batch of hard names, however classical may be their derivation, or however expressive they may be of the simple character of disease. There is something more than this required of the practical nosologist: his arrangement should essentially aim to bring together those diseases which originate from identical or analogous causes, consisting in a similar condition of parts, occurring in individuals of similar constitutions or temperaments. It would, hence, not be very difficult to adopt one general principle of treatment for diseases combined in one division, however certain circumstances may require a modification of internal remedies, or a variation in topical treatment. To this end we think the arrangement of Mr. Dendy, which in some parts does not essentially differ from his contemporaries, is as concise and simple as the varieties of the diseases of which he treats, will allow. The first part of the work consists of an introductory essay on the importance of the study of cutaneous diseases, on the danger of injudicious and empirical treatment, and on the pernicious consequences of self experiment, especially among females of rank. These observations are succeeded by a section referring to the prevention of cutaneous disease; comprehending directions with regard to aliment, laxatives, ablution, &c., and the essay concludes with a brief chapter on the anatomy and physiology of the skin. On perusing this portion of the work, we think it might undergo the process of pruning with advantage; nevertheless, the author may be justified in offering his arguments strenuously and at length, on a subject confessedly of great importance.

Mr. Dendy has not been sparing of quotations to strengthen the arguments he advances, and has drawn some of his illustrations somewhat fancifully from poetical sources; but he is defended in this privilege of mingling "utile dulci," by no less an authority than the example of the philosophical author of Zoonomia.

We have neither time nor space to dwell longer on the introductory essay, but we would particularly point to the observations on the pathology of metastasis, and on the danger of repulsion, as it is termed, of eruption; to the censure of the custom of wet-nursing by a stranger, and to the pernicious effects of over-feeding. We shall, therefore, proceed to offer a few remarks on the practical portion of the work, which Mr. Dendy has divided into five sections, arranged essentially according to the causes of diseases.

The 1st division comprehends "Diseases symptomatic of disorder in the alimentary viscera," as strophulus, &c. The 2d division contains the "Diseases symptomatic chiefly of deranged chylopoietic functions, usually marked by debility."

From the subject of purpura hæmorrhagica, we quote the following passage:—

"On the first effusion of the blood, it is often of a florid hue, but it speedily becomes purple, assuming a brownish tinge as it is about to be removed by absorption. The cuticle above the spots is slightly elevated and smooth; sometimes, however, it is raised in vesicles filled with purple blood. In purpura hæmorrhagica, as well as scorbutus, the mucous surfaces are often more affected than the external skin, the danger being then materially increased, as the delicate epithelium is easily burst by the extravasated blood, and thus we have hæmorrhages from the gums, the throat, &c., which have given the specific name to this form. Internal hæmorrhage may thus take place, which sometimes proves fatal. It is rare that hæmorrhage takes place on the

surface of the body; but, in some cases, the slightest pressure will produce ecchymosis, and firm compression will break the cuticle, and the blood will flow from the lesion. I have seen children evince this petechial tendency, being spotted black by the slightest bruises. The extravasation in very extreme cases, will sometimes occur from the mere muscular action of a limb. Blood will sometimes flow from the eyes, nose, and mouth of children, at the same time that they expectorate bloody mucus, and pass bloody stools resembling melæna, consisting only of sanious coagula, mixed with intestinal mucus. In protracted cases, where internal hæmorrhage has not speedily proved fatal, we see the blood gradually become paler, until, at last, the hæmorrhage will scarcely stain the linen on which it drops; the ecchymosed spots being subject to the same faded change, the circulating fluid appearing to assume almost the character of serum. The heart and liver have been found very pale in their internal fibrous or parenchymatous structure, a livid colour appearing under their internal membrane."

It is the author's opinion, "That the exciting cause of purpura is a defective state of chylification, which, of course, may coexist with excessive appetite and engorgement."

The 3d division comprehends "Diseases usually symptomatic, depending probably on peculiar idiosyncracy."

Mr. Dendy is of opinion, that erysipelas gangrenosus is sometimes ante-natal:—

"The chemical decomposition of a fœtus dead within the womb, will produce appearances of livid spots, vesication, and sphacelus; but, where we have a *live* child expelled with *partial* gangrene, we may reasonably refer such effect to previous erysipelatous affection."

With regard to the morbid anatomy of erysipelas acutum, the author observes,—

"Dissection shows to us, that the elasticity and extensibility of the cellular membrane are lost; dark grumous blood is found in the centre of inflamed membrane, and an appearance of incipient sphacelus. Hence, incisions made at this period during life, will not be followed by fluid discharge, but by clots of thin, coagulated blood; sometimes there is an opaque serum evacuated, very seldom pure pus."

Granting this to be correct, it strongly inculcates the practice of incisions,—the leading practical topic of the day. We should resort to it in such cases on the same principle as we should make crucial incisions in carbuncle. In his treatment, the author properly discriminates between the different forms of the disease.

The 4th division contains "Diseases consequent to specific infection," and the 5th, "Local diseases."

To conclude, we think the definitions of the diseases correctly stated, and, altogether, we are of opinion, that Mr. Dendy's work, if it add not much of novelty to our pathology, will tend materially to simplify the study and treatment of the cutaneous diseases of childhood.

WESTMINSTER MEDICAL SOCIETY.

Saturday, January 19, 1827.

Dr. Barry, in the Chair.

A Paper was read by Mr. Duchet, on curvature of the bones of the lower extremities, as occurring in children, and he attempted to distinguish this affection, which he denominated simple curvature, from *rickets*; assigning as a reason for this division, that in four cases which he had treated, there was no enlargement of the heads of any of the bones, and also no affection of the spine. With respect to the *cause* of the distortion, he argued, that, inasmuch as an enlarged abdomen was an invariable concomitant of this disease, the distortion of the limbs was produced from the additional weight which they had to support. In the treatment of the four cases, (the particulars of which were minutely related,) rest, with attention to the general health, and the use of iodine ointment, were successfully resorted to. The abdomen, in each of these cases, was greatly swollen, and the iodine was employed under the supposition that there was an enlarged condition of the mesenteric glands; the distortion was observed to diminish progressively with the tumefaction of the belly.

The discussion which ensued was at first flagging, but eventually became very general. Mr. Bennett, Mr. Arnott, Mr. Lambert, and Mr. North were amongst the principal speakers. The causes assigned for the distinction of this curvature from ricketa

were shown to be untenable, for it was stated that the latter disease may, and frequently does, exist without enlargment of the heads of the bones, or without any spinal affection. It was admitted, however, that a species of curvature is produced in children who are comparatively healthy from bad nursing, from being made to stand at a very early period, when the bones are incapable of supporting the weight of the body. The mechanical cause of curvature, as stated by Mr. Duchet, was generally denied, it being argued that an additional four or five pounds weight to the abdomen could not occasion the bending of the legs; that in many cases of enlarged belly no curvature of the limbs was observable, and vice versa.

On the subject of rickets in general, some interesting remarks fell from different members of the Society. The question was agitated with respect to the actual proof of a diminution of the quantity of phosphate of lime in the bones when distorted, and in support of this view the opinion of Scarpa, as expressed in his last work, was quoted, namely, that in certain cases the phosphate of lime may be detected in the absorbent vessels; and also Mr. Wilson's observation, that in the cases of distorted bone, where a cure is attempted, phosphate of lime is found to be deposited on the concave surface of the curve. It was remarked, as somewhat singular, that no chemical analysis of the diseased bones had yet been instituted, although a very obvious method of ascertaining with certainty the fact of a diminution of phosphate of lime, and also its exact proportion.

In the course of the evening, when at one period the discussion on Mr. Duchet's paper had temporarily ceased, Dr. Duffin related a case which had fallen under his care in Edinburgh, and which he entitled "simulated hip-joint disease." The symptoms were stated to be precisely similar to those of morbus coxarius. There was great swelling about the hip-joint and upper part of the thigh, and indications of matter having formed, when all the local symptoms suddenly subsided under a discharge from the bowels of about two quarts and a pint of fluid, resembling yeast, mixed with some fæculent matter, the whole having a very sour smell.

The debate upon this case was very short, and principally hinged on the circumstance of its being contended that pain at the knee (which was not present in Dr. Duffin's case) is pathognomonic of acute disease of the hip-joint, whilst on the other hand it was argued, that in many cases of diseased hip-joint there is no pain felt at the knee. Mr. Copland Hutchison was of the latter opinion.

LONDON MEDICAL SOCIETY.

January 21.

Dr. Haslam, President, in the Chair.

The Society was again occupied this evening in discussing Mr. Searle's "Essay on Parturition," the main object of which was to prove, that the respiratory muscles are the most important agents in the expulsion of the fœtus, and that the uterus itself has but a very small power as an adjuvant.

The question with respect to the muscularity, or non-muscularity, of the womb was not long dwelt upon, because the author of the paper himself admitted that it possessed *tonicity*, or *contractility*; and it was also well observed, that parts might be amply endued with muscular power, although no muscular fibre were discernible. As an illustration of this the polypi, and the various zoophytes, were referred to, which, although apparently mere gelatinous masses, do possess an inherent capacity of motion to a surprising extent.

The grand point on which Mr. Searle attempted to maintain his opinion was, that the power of the uterus, even admitting its contractility to its fullest extent, would be exerted rather to retain than to expel the fœtus, and he instanced grasping a sponge in the hand. On this it was observed, that there was no analogy between grasping a substance, with the hand completely closed, and the uterus contracting upon a substance with its mouth open. It was remarked also, that the œsophagus contracts upon the substances passing through it, yet it does not retain them.

"The diaphragm pressing upon the fundus of the uterus," said the author of the paper, "is the material power which expels the child." In opposition to this it was argued, that the diaphragm can only descend to a certain distance, where it becomes fixed, and then is antagonised by the abdominal muscles, the force of which, according to Mr. Searle's own showing, is exerted in a direction calculated to retain the fœtus.

The Society in general entertained the commonly-received opinion, that the fœtus is expelled by the power of the womb, materially aided by the respiratory muscles, in the same manner that, by a conjoint power, the rectum and bladder are emptied.

Mr. Searle, however, was not convinced, and, although repeatedly beaten down, such was his elasticity, that he was again upon his legs; indeed, like the fabulous giant of old, he seemed to recover fresh vigour from being thrown to the earth.

The speakers were very numerous, amongst others were Drs. Walshman, Clutterbuck, and Williams; Mr. Tyrrell and Mr. Waller.

MEDICO-CHIRURGICAL SOCIETY,

January, 22, 1827.

B. Travers, Esq., President, in the Chair.

The particulars of a case of "medullary sarcoma, with hydrothorax," which recently occurred in the practice of Mr. Travers, were detailed to the Society.

The patient, a middle-aged athletic man, after an imprudent exposure to cold, was affected with uneasiness in the right hypochondriac region; at first, however, so trivial, that it was deemed to be merely a slight hepatic affection; but in a short time the symptoms assumed an alarming aspect, the right side of the chest obviously became greatly enlarged and distended, and there was dyspnœa to the most distressing degree, with violent palpitation of the heart. When Mr. Travers saw the patient, it was apparent that an accumulation of fluid had taken place in the right side of the chest to a very considerable extent; in consequence, the operation of paracentesis thoracis was resorted to, and about ten pints of serum were drawn off, dark coloured, but perfectly homogeneous. Some relief was afforded by the abstraction of the fluid, and also by the free exhibition of the liquor opii sedativus, digitalis having been previously given without benefit: upon the whole, the patient was so far improved, that an attempt was made to bring him to London (a distance of eighty miles) by easy stages, but he died on the journey. The period of his illness was three weeks only; a few days before this time, he was apparently so healthy and vigorous, that he tired two men in a day's shooting. Nine months previously, he had complained of slight uneasiness on the right side, and four years before, had had a tumour removed from the thigh, of a medullary character.

On a post-mortem examination of the body, about a gallon of fluid, of a straw colour, was drawn from the chest, the abdominal viscera were found to be healthy, but the stomach was greatly distended with gas. The diaphragm was seen lying in loose folds, the heart was completely pushed to the left side, and the left lung was condensed, pressed almost flat, and intimately adherent to the paries of the thorax. The right pleural sac was so much enlarged, that it occupied at least three-fourths of the chest; the pleura pulmonalis was studded with medullary tubercles of various sizes; there were also some coagula of blood in the sac, with portions of false membrane. At the upper part of the chest, lying upon the œsophagus and bronchi, was a medullary tumour, weighing at least three pounds, and consisting of brain-like matter externally, with grumous blood in the centre, having, in fact, all the characteristics of fungus hæmatodes. Owing to the compression of the tumour, the inferior lobe of the right lung was the only respirable portion; the fungoid disease, however, had not extended into the pulmonic substance. From the lower part of the cicatrix in the thigh, whence the medullary tumour had been removed four years before death, Mr. Travers took away a small substance, possessing the characters of medullary disease.

A case somewhat of a similar description to the foregoing, communicated by Dr. Hewett to Mr. Travers, was also related. The medullary tumour, in this case, was on the left side of the thorax, and was of about the size of an orange; there were fungoid tubera on the *outer* side of the pleura costalis, there had been extensive serous effusion into the thorax, and the operation of tapping had been performed. As in the former case also, the substance of the lungs, although suffering compression from the effused fluid, was not affected with the *malignant* disease.

In commenting upon the first case, Mr. Travers observed, that it well illustrated the disposition of fungoid disease to invade the different textures of the body; passing out of the line of the absorbents, it had first attacked *cellular* tissue, (in the thigh,) and then invaded a *serous* membrane at a remote part (the pleura). Mr. Travers proposed, as a question to the Society, whether it had occurred to any of the members, to meet with a case of "pure hydrothorax"—that is to say, a case in which there was no morbid change in the lungs.

Mr. Lawrence spoke at considerable length; he said, that he believed there was no such case as simple hydrothorax, that the effusion of serum was always the result or effect of some organic alteration; and consequently, that the operation of drawing off the fluid could only be regarded at best but as a palliative measure. He thought that the quantity of fluid effused in Mr. Travers' case, and also in Dr. Hewett's, clearly evidenced that extensive organic disease existed within the chest, and so far, was of importance as regarded the diagnosis. He did not concur with Mr. Travers in the opinion, that the disease was of much longer duration than the three weeks acute illness of the patient, for it had been said, that previously to that period, he had taken very laborious exercise in field sports, which could scarcely have taken place had disease existed in the chest. Mr. Lawrence was of opinion that the disease might have com-

menced and run its progress, even in the space of three weeks; for, he observed, that the rapidity with which fungus hæmatodes pursued its course, is a prominent diagnostic feature, and in confirmation of this, he related a case occurring at the head of the tibia in a patient 22 years of age. The affection came on about Christmas, and had so far extended, that early in the month of April it was necessary to amputate the limb; six days after the operation, ulceration of the artery ensued, and the case proved fatal from hæmorrhage. Upon examining the limb, it was found that two-thirds of the head of the bone were destroyed, the surrounding muscular texture was implicated, and a tubercle was found in the liver.

With respect to the displacement of the heart, as observable in Mr. Travers' case, Mr. Lawrence remarked, that although the heart is most frequently displaced gradually, yet it may occur also suddenly. He had met with a case of this nature, in a boy 15 years of age, who was brought to St. Bartholomew's on account of having been severely crushed at the chest; on the day after admission, the heart was felt beating violently on the right side, and not distinguishable on the left side. The peculiarity was so very striking, and existing as it did without any very apparent cause, that Mr. Lawrence was at first disposed to attribute it to some connate malposition; however, in the course of treatment (antiphlogistic) the heart resumed its natural situation.

Mr. Travers, in reply to Mr. Lawrence, said, that he grounded his opinion of disease having existed in the chest for a longer period than three weeks, on the fact of the left lung being in a state of condensation, and yet so attenuated, that it might be said to form the parietes of the chest on the left side, being not more than two or three lines in thickness, and the pleuræ most intimately coherent. Such an appearance of the lung, he said, had been noticed by Haller, and was different from the dense condition of the lung described by Morgagni, Baillie, and others, and of common occurrence.

The other speakers were Dr. Birkbeck, Mr. Earle, and Dr. James Johnstone: Dr. Birkbeck alluded to the circumstance of Mr. Travers' patient having only complained of trifling uneasiness about the chest, previously to the last illness, whereas close adhesion of the left pleural surfaces (the result of severe inflammation) had taken place. Mr. Earle briefly related a case of fungoid disease as an exemplification of the rapidity of its progress; Dr. Johnstone thought that auscultation, or even percussion, would have corrected the diagnosis in Mr. Travers' case.

PHYSIOLOGY OF PARTURITION.

To the Editor of The Lancet.

Sir,—In the report of a meeting of the London Medical Society, (17 Dec. 1827.) published in The Lancet of the 22d Dec., a paper is noticed on the action of the respiratory muscles in parturition, in which Mr. Searle states that "the only writer who fully accords with the proposition, that the respiratory muscles are the principal agents in parturition, is Blumenbach." Had Mr. Searle made himself acquainted with the contents of the Translator's "Introduction to Mojon's Laws of Physiology," he would then have found that the translator had published numerous reasonings on the funtions of the uterus and respiratory muscles in the uterine phenomena.

Although little merit will be obtained for an attempt to remove the idea of the fœtus being expelled by the spasmodic contractions of the uterus; I cannot allow that gentleman the claim of priority, even should that idea be supported by fact, as it is now by lurking prejudice.

Blumenbach considers the action of the respiratory muscles only among the *remote causes* of parturition, which is generally admitted by obstetric artists; therefore I did not quote him as a particular authority; and a still further reason for not adducing this German philosopher as a support to my reasonings, is the fact of his asserting that, "the *proximate* and primary cause of parturition is solely the *vita propria* of the uterus." * This *vita propria* he calls a law of nature!

Thus it will be found that if merit is due to the promulgator of a new theory of parturition, and other functions of the uterus, namely, the menstrual discharge and the fœtal venous circulation, &c. it cannot be a tribute to be paid to the learned Blumenbach.

Thanking you for the insertion of this letter in the popular pages of your Journal, I have the honour to be,

Sir,
Your obedient servant,
George R. Skene.

6, Jermyn Street, St. James's,
19th. Jan. 1828.

* Dr. Elliotson's Translation of Blumenbach's Institutes of Physiology, p. 383. sect. xli.

GUY'S HOSPITAL.

SINGULAR INSTANCE OF GANGRENOUS INFLAMMATION AFFECTING THE CELLULAR TISSUE, BEHIND THE PERITONEUM, WITH DESTRUCTION OF THE APPENDIX CŒCI.

The following case, which occurred in the female clinical ward during the past week, has excited much interest. The anomalous character presented by the disease during the life of the patient, with the circumstances revealed on post mortem examination, are highly remarkable.

M. A. H., ætat. 19, was admitted on the tenth of January, under the care of Dr. Cholmondeley. She had been ill several days, and complained of great pain, and tenderness upon pressure over the whole of the right inguinal region; the pulse was quick and thready; the skin hot, and tongue furred; the bowels had been scantily open in the morning; there was occasional bilious vomiting.

The patient had been attended previously to her admission by Mr. Gaitskell of Rotherhithe, and we believe that Mr. Callaway had also seen her. Blood-letting from the arm had been adopted thrice, with the free application of leeches, and a blister to the part in pain. It was surmised from the limited seat of the pain that there was inflammation of the round ligament of the womb, and the circumstance of the girl dating the origin of her complaint from exposure to cold whilst menstruating, gave a colouring to this opinion.

The treatment employed on admission into the Hospital consisted in the application of leeches, with the exhibition of one grain of calomel, and a like quantity of opium, every four hours. Enemata were also directed.

On the eleventh, the pulse was quick and sharp, and there was still intense pain in the inguinal region; the patient laid in bed with her knees drawn up, any motion occasioning a severe dragging pain. The bowels had been open several times, but all the evacuations were passed with great pain, and this circumstance had been especially remarked before the patient's admission into the Hospital, and also that although there had been frequent watery and thin stools, no solid matter had passed.

On the twelfth, the symptoms continuing unrelieved, blood was taken from the arm to the amount of *ten ounces*, and the pulse having risen, two hours afterwards twenty ounces were abstracted, when, according to a report in the clinical ward-book, the pulse became soft; calomel, with opium and tartar emetic were prescribed.

On the thirteenth, the pain was still excessive, and confined to the same part; leeches were very freely used.

A report on the fourteenth, states that the patient passed some dark scybala, the tenderness and pain were somewhat less, but there was great fulness and hardness in the course of the cœcum, and ascending portion of the colon. There was occasional vomiting of bilious matter, and frequent hiccup. Ten ounces of blood were taken from the arm.

On the 15th, the sickness was very distressing, being induced on the slightest motion; the countenance was sunken, and all the vital powers were so much lowered, that a small quantity of wine was prescribed. The swelling and pain in the inguinal region, were unrelieved.

On the following day, the 15th, the patient had rallied in some degree, and the report in the Clinical Ward Book states, there was an obscure sense of fluctuation in the right inguinal and iliac region.

Throughout the 16th, the patient continued in an alarming condition; the bowels were now so freely relaxed, that the motions were passed in bed. About eleven o'clock at night, Mr. Key saw the patient, and "fluctuation being more distinct," an opening was made, of about two inches in extent, through the paries of the abdomen, and at a short distance above the spine of the ilium. It is stated, that after the opening had been made, a quantity of fœtid gas escaped, and also about two tea-spoonsful of sanious fluid, which was highly fœtid. The opening was effected by cautious dissection, and the peritoneum is said to have been "full an inch and a half from the surface," and "of a blue colour." A cavity was clearly to be traced with the finger.

The patient continued to suffer greatly during the 17th, and died early on the morning of the 18th, having been in the hospital, as will be perceived, eight days.

Post Mortem Examination.

This was made, about six hours after the patient's decease, by Dr. Burne, with his accustomed accuracy. Upon laying open the abdomen by means of a longitudinal incision, no morbid appearance, *prima facie*, was perceptible; but, on drawing back the integuments of the abdomen on the right side, it was found that adhesion had taken place between the omentum and peritoneal covering of the parietes. It was simply, however, an agglutination, and the parts were very readily separated, when it was found that a kind of cyst had been formed by means of the adhesions, which contained a small quantity of dark serous fluid.

The peritoneum covering the back part of the abdomen on the right side, and on which the dark serous fluid had laid, (it being, of course, within the bag of the peritoneum,) was observed to be of a dark colour throughout, and there was evidently a collection of dark fluid behind it. The membrane was carefully sponged and wiped, with a view of ascertaining whether there was any lesion of its substance; however, after a minute inspection, none could be detected. An incision was then made through it, and here most extensive disease was found; the cellular tissue, over the psoas and iliacus internus, was engorged with a dark bloody fluid, the substance of the muscles themselves was destroyed to a considerable extent—in fact, the parts were in a gangrenous condition. The back part of the cœcum, and ascending portion of the colon, were of a dark red colour, apparently the result of simply lying in contact with the gangrenous cellular tissue; there was no breach of their texture to be detected, and, although the peritoneum was of a dark colour, it had, as far as could be ascertained, preserved its integrity.

It is highly important to mention, that a considerable portion of the appendix cæci was found to be destroyed, and the remainder had a dark-coloured appearance. The appendix cœci was included in the kind of cyst, which, we have said, resulted from the adhesion of the omentum to the peritoneum of the right paries. From the circumstance of the destruction of the extremity of the cœcal appendage, it was surmised that some extravasation of its contents might have taken place, but there was no fœcal smell either in the fluid accumulated within the bag of the peritoneum, or that which was formed in the cellular tissue posterior to it. And, again, there was no communication to be found, existing between the fluid within and that without, although they did not differ from each other in appearance. The general surface of the peritoneum was free from disease, and no other morbid change than we have described was observed.

ST. THOMAS'S HOSPITAL.

SCIRRHOUS DISEASE OF THE LOWER PART OF THE ŒSOPHAGUS, WITH EXTENSIVE ULCERATION OF THE MUCOUS MEMBRANE.

In a clinical lecture delivered a short time since, Dr. Elliotson exhibited to the class the stomach and œsophagus of a female patient affected with scirrhous disease of the latter part. The particulars of the case are as follow:—

The patient, a middle-aged woman, sallow and unhealthy in appearance, came into the Hospital on account of severe occasional pain in the whole of the epigastric, and both hypochondriac, regions; she evinced much tenderness, on making pressure at these parts, and complained of a slight difficulty in swallowing, which she said was owing "to the wind meeting the food." She had been affected with occasional vomiting, and a dry husky cough, upwards of eleven months.

Dr. Elliotson, considering the symptoms as referrible to chronic gastritis, freely and repeatedly leeched the epigastrium, and also applied blisters; the extent of pain was by these means removed, and what remained was in the left side only, under the cartilages of the ribs and about the situation of the cardia. The vomiting, however, continued, and in the course of a short time the pain, although lessened in extent, became continual; the difficulty of swallowing also greatly increased. The sickness was observed to occur immediately after taking food, and thus every thing was rejected. It now being evident that there was some mechanical impediment to the passage of the food, and that the obstruction did not arise from "flatulent spasm," as was supposed by Dr. Elliotson in the first instance, a bougie was passed, and a stricture was found to exist at the lower part of the œsophagus. The bougie was at first resisted by the stricture, but after waiting a minute or two it readily passed into the stomach; the effect of the introduction of the instrument was, the excitement of as much gastritis as when the patient was admitted, leeches and a blister were in consequence applied, which subdued the irritation and pain in some degree, but the vomiting still continued. Opium and saline effervescing draughts failed in checking the sickness, and prussic acid was therefore directed, commencing with the dose of one minim three times a day, and gradually increasing it to *four minims*. In the latter dose it stayed upon the stomach, and, as Dr. Elliotson remarked, was the first and only thing that did so; the relief from this medicine was very striking, for upon its being omitted for a day the vomiting immediately recurred in a distressing degree, and was then as speedily checked by the acid. The dose was eventually augmented to *seven minims*, and with this dose the tendency to sickness was so far removed that food stayed upon the stomach. However, the poor woman being unable to swallow without great difficulty and distress, and being in constant pain, which deprived her of rest, the general health gave way, and at length she sunk.

The body was examined, and at the lower end of the œsophagus, about an inch from the cardia, there was found ulceration of the mucous membrane to the extent of an inch and half; it was quite superficial, of a dirty white colour, rough in appearance, but soft to the touch. Exterior to the ulceration the coats were converted into a solid cartilaginous substance, that on being cut into was seen to be homogeneous and white, having in fact all the characters of true scirrhus. The cartilaginous hardness was of greater extent than the disease of the mucous membrane, and this circumstance Dr. Elliotson especially pointed out, as leading to the inference that the disease probably commenced in the connecting cellular tissue of the œsophagus, and certainly not in the lining membrane.

Dr. Elliotson observed, that with respect to the diagnosis of the case, he had given an opinion that the disease was about the cardia previously to its being ascertained by the introduction of the bougie; that the situation of the pain, the constant vomiting when food was taken, and the absence of pain or tumour in the region of the pylorus, were the circumstances which led to this opinion. He remarked also that in cases of diseased pylorus, the vomiting, if it occur at all, is usually an hour or more after taking food.

ST. GEORGE'S HOSPITAL.

CASE OF SEVERE CONCUSSION OF THE BRAIN, TREATED BY MR. JEFFREYS.

W. T., ætat. 37, was brought into the Hospital on Monday the 29th of October, at one o'clock A.M., in a state of insensibility, having, about half an hour previously, fallen down the steps of an area, and pitched upon his head. It is supposed that he was rather intoxicated at the time. There was a large wound of the scalp over the right parietal bone, and a smaller one on the occiput; the pericranium was not injured. There was some bleeding from the right ear, and also from the nose. When the head was touched in the neighbourhood of the wounds, he evinced pain by raising his hands to his head. The pupils acted when exposed to a candle; the respiration was loud, the pulse slow and weak, and the extremities cold. The edges of the wounds were brought together by strips of adhesive plaster. At 10 A.M. he was much recovered from his insensibility, answered questions coherently, and complained of great pain in his head, with confusion of ideas; the pulse was weak, but rather quicker. At two P.M., the pulse having increased in fullness, and the skin becoming hot, he was bled to twelve ounces, and was directed to take one drachm of the sulphate of magnesia, twenty minims of antimonial wine, with an ounce and a half of the saline mixture, every four hours. Ten P.M. The patient is very restless, complaining of violent pain in the head; the skin is hot, and the pulse full. The bowels have been moved. He was now bled to 16 ounces.

Oct. 30. Has had a restless night, complains of much pain and soreness in the back part of the head; he dozes much, but is sensible when roused. The tongue is white and foul, the pulse slow, full, irregular, and intermitting; he has passed four or five copious stools, after which he appeared slightly relieved. Bled to 18 ounces, and ordered to take one grain of calomel, with four of jalap, in a pill, and a dose of saline mixture, every four hours.

The blood drawn yesterday was not buffy; the man has had a better night, and is more sensible to day, but he still complains of great pain in his head. He also directed the attention of Mr. Jeffreys to the posterior part of the left ilium, where he felt much pain; there was found to be considerable contusion here, with a sensation of crepitus. Twelve leeches were ordered, and a flannel roller to be afterwards applied. The bowels have been freely evacuated; the tongue is clean, the pulse is 100, full and regular; he was bled to 14 ounces, and ordered to continue the saline mixture, but to omit the pills.

Nov. 1. The man has been restless, and rambled a good deal in the early part of the night; he is sensible, and complains of pain in his head, particularly across the forehead and eyeballs; the tongue is white and furred, the bowels open, the pulse 92, sharp and hard. The blood drawn yesterday does not appear inflamed; he was bled again to ten ounces.

2. Has had a quieter night, but still complains of pain across the forehead; some pus was observed to ooze from a small orifice above the right ear, and as there was slight swelling, with tenderness on pressure, an incision was made into it. The tongue is white, the pulse 96, bowels open; the wounds are looking well; directed to continue the same mixture, and to have a linseed meal poultice applied to the temple where the incision was made. The blood drawn yesterday was slightly buffed.

3. Last evening the pulse having become sharp, and the pain across the forehead increased, he was bled to eight ounces; he slept a little last night, is perfectly sensible, but is rather deaf; there is some tumefaction about the incision made yesterday, and he complains of great tenderness about

the eyes; the pulse is weak, the tongue white, and the bowels are open; to continue the saline mixture.

4. Has passed a better night, having slept five or six hours. Ten leeches were applied last night to the right temple; the bowels have not been opened since yesterday; the tongue is white, and the pulse is not so sharp; he was directed to take three grains of calomel, and fifteen of jalap, directly.

5. The man has had a quiet night, the bowels have been moved several times, the motions being of a dark colour; the pain in the head is not so violent, but he cannot bear the light; the wounds are looking healthy, and discharge freely; the tongue is white and moist, and the pulse is rather sharp. Directed to take a senna draught directly, and to repeat it three hours after.

6. The man has had a tolerable night, but still complains of pain across the forehead; he answers questions quickly; the pulse is full and irritable; ten ounces of blood were ordered to be drawn from the temples by cupping, and to take four grains of calomel directly, with a senna draught three hours after.

7. The wounds look well; has less pain in the head, and the bowels have been moved. A blister was applied to the back of the neck.

8. Since the application of the blister, he has had much less pain, and his countenance is more lively. Directed to take a senna draught every three hours.

9. Has had a good night, complains of the light hurting his eyes; the tongue is clean; bowels open; the pulse is weak and flagging; he was ordered to take half a drachm of sulphate of magnesia, twenty minims of the tincture of henbane, with an ounce and a half of infusion of roses, every four hours.

10. The patient has less pain in the head, and intolerance of light; the wounds are healing, the tongue is clean and moist, the pulse is 100, and more regular; the bowels are costive. He was ordered to take a senna draught every three hours, until it acted.

14. Has had a restless night, with great pain on the right side of the head; there is also a redness and puffiness observable about the wound over the ear, and the wound itself is dry and sloughy. He has had several rigors this afternoon; is perfectly sensible; the bowels are open, and the pulse is quick. Linseed poultice to be applied to the wounds.

15. There is great tenderness over the whole scalp; the redness is more extended; the man has rigors occasionally; the tongue is furred; bowels have not been moved since yesterday; the skin is hot; pulse 100, and full. Eight ounces of blood were ordered to be drawn from the arm, and ten leeches to be applied to the temples; and after the leeches came off, a bread poultice was to be applied; the man was also ordered to take two grains of calomel, three of antimonial powder, and six of jalap in a powder, and an ounce and a half of the saline mixture every four hours.

16. The man has had a restless night, and is very fidgety and impatient this morning; the tongue is white and furred; the bowels were moved in the night; the skin is very hot; pulse 110, hard and wiry; he was bled to sixteen ounces, and twelve leeches were applied to the temples; a spirit lotion was afterwards kept constantly applied to the head.

17. Has had no sleep, but is more composed this morning; there is less tenderness of the scalp; the blood drawn yesterday is both buffed and cupped; the tongue is cleaner; the bowels are open; the pulse is softer and slower; twelve leeches were applied to the temples, and a senna draught was ordered to be taken directly.

18. Tongue is clean; bowels are open; the pulse 95, and fuller. The man has lost about four ounces of blood from the temporal artery, where the scarificator had been applied. Twelve leeches were ordered to be applied to the head, and he was directed to continue the medicine.

19. Has had some sleep to night; his countenance is improved; the skin is moist; pulse 85, soft, and regular; the tongue is clean, and the bowels open; continue the medicine. The temporal artery bled again to-day.

21. The artery was divided to-day, to prevent any more loss of blood, and the man was ordered to take some sulphate of magnesia in infusion of roses, occasionally.

22. There is slight erysipelatous inflammation about the nose and face. The spirit lotion was ordered to be applied to the parts.

From this period, nothing material transpired; the inflammatory affection of the skin speedily subsided; the man gradually recovered his health, and was dismissed well.

The most striking feature in this case, was the long-continued disposition to inordinate vascular action within the head, and this is by no means an unfrequent effect of what appears to be commotion of the brain, simply. There is, in such cases, some derangement of the equilibrum of the circulation, and it is surprising with what obstinacy it continues, resisting, in many cases, even the most rigorous antiphlogistic measures.

[Correspondents in our next.]